DESIGN-BUILD PROCUREMENT PROCESS REPORT

Appendix 2 – Compatibility of NYSDOT Procedures and Guidelines with Design-Build Procurement

MARCH 2003

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

GEORGE E. PATAKI, Governor

JOSEPH H. BOARDMAN, Commissioner

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PREPARED BY

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.

FOR

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Design Procedures Manual

Compatibility of Design Procedures Manual with Design-Build Procurement

Part/Section	Title	Reason to Change
Part I	Introduction to the Design Procedures Manual	
1.0	Table of Contents	Titles of sections will likely change
2.0	Overview, Purpose & Use	
2.1	Overview	Paragraph should indicate the procedures are for Design-Build projects.
2.2	Purpose	Paragraph should indicate the procedures are for Design-Build projects.
2.3	Use	Roles and responsibilities of Functional Managers and Regional and Main Office staff will likely change for design-build. Design-build usually necessitates more project-centered responsibilities with less centralized control. Likely that this section will change as other changes in policies and procedures are changed.
3.0	Role of the Functional Manager for Technical Decisions During the Scoping and Design Phase	Role likely to be unchanged during scooping phase. The necessity for rapid project-level design decisions may alter role of Functional manager during design phase. Also, issue resolution in design-build normally focused at lowest level possible, which may adjust role of Regional Design Engineer and Regional Director in issue resolution.
4.0	Applicability and Responsibilities	The title of other related documents that are cross-referenced may have to be modified if they are modified to be compliant with DB procedures.
4.1	Federal-Aid Projects	
4.1.1	Applicability (Design Phases I-VI)	Changes may be required is liaison responsibility with FHWA changes for design-build projects.
4.2.2	Responsibility	Centralizing design related approvals with Regional Director (or that level) might inhibit rapid approvals required to keep pace with typical fast-moving DB project.

4.3	All Projects, Applicability and Responsibilities (PS&E, Design Phase VI)	
4.3.1	Applicability	Since WORK IN Design Phase VI will be done by Design-Builder, need for change likely.
4.3.2	Responsibilities	Centralized PS&E approvals at Regional Director, FHWA or Chief Engineer level may be inconsistent with need for rapid response and design approvals. Estimates will be made at earlier phase for DB projects since DB contractor will be preparing final plans and project-specific specifications. Estimates will have to be done before RFPs sent out. See later discussion relating to Phases IV, V and VI.
Table 1-3	TEA-21 Procedures/Design Related Approval Matrix	May need to redefine $ thresholds because DB includes more than just construction costs.
5.0	Format and Content of the Manual	
5.1	Part II, Procedural Steps	Likely to have different steps in DB.
5.1.2.2	Order of the Steps and Phases Within the Design Process	Referring to second paragraph, Phases I-IV cannot progress concurrently because Phases I-IV will be State responsibility (and done before issuing RFP and award) while Phases V and VI will be DB responsibility after award. In (1), the timing contents of a PS&E memo will have to be adjusted since state will be providing less than final plans and specifications with the RFP and the state estimate will need to be done during Environmental Documentation, Preliminary Engineering and Estimating Phase. In (4), may need to clarify what constitutes “design approval” for design-build. Cannot wait till 100% design done to begin ROW acquisition.

6.0	Overview of the Relationship Between the Environmental Classes (NEPA), the Environmental Types (SEQR), NYSDOY Design Phases and Design Approval Document Titles	
6.4	NYSDOT Project Development Process	Probably need to clarify that public communication and involvement need to continue into the DB contractor's phase of design development. Figure 1-5 needs to be revised to reflect the need to include risk identification, assessment and allocation and determination of level of preliminary engineering immediately following the Scoping Stage, and that the activities and steps in Designs Stages IV, V and VI will have to be redefined and reordered for design-build. The State primary design development role will cease at the end of Phase IV (and will need to include "Contract Drawings, "Contract Specs", and Estimates) and the DB contractor will be responsible for what is currently called Phases V and VI design activities.
6.4.1.4	Scope Closure Document	In "B, Scope Summary Memorandum", may need to cover risk identification, assessment and allocation and level of preliminary engineering that State needs to provide.
6.4.2	NYSDOT Design Phases	The section will need to be revised to reflect: State's primary role in terms of the design effort will be to define the problem(s) and the criteria and constraints that will apply to design and construction; the contractor will have the primary role of providing solutions within the parameters established by the State. There will be additional steps and processes in parallel with Design Phases I – IV for DB. Phases V and VI should be deleted and a new set of steps and procedures developed to reflect that the design steps and activities within Design Phases V & VI will be the responsibility of the DB contractor.

6.4.2.4	Design Phase IV – Final Evaluation, Recommendation and Design Approval	The identification of the "preferred design" is likely to be part of the procurement process, whereby design approaches are proposed by DB teams and the preferred design is identified during the proposal evaluation and selection process. The State's Engineer's Estimate will need to be completed concurrent with Design Phase IV. DB steps/phases concurrent with Design Phases I-IV should include: • Preparation of RFQs • Evaluation of SOQs and determination of short-lists • Development of RFP documents [Instructions to Offerors, Contract Documents (including PE drawings) and Reference Documents] • Engineer's Estimate For DB the RFP will have to be submitted to DQAB for contract letting after Phase IV under DB (not at end of Phase VI as in design-bid-build)
6.4.2.5 and 6.4.2.6	Design Phase V and Design Phase Vi	Will need to be rewritten to reflect that DB contractor will do the actual design work. Need to define Department's role under a DB project execution.
7.0	Design Activity Tables	Tables 1-6 and 1-7 will need significant redefinition and reordering of steps and activities to replace the current aADesign Phases V & VI. DB steps that are concurrent with Design Phase IV will have to be defined and will include many steps similar to those shown as State steps or activities in the current Phases V and VI. The revised DB Phases will need to reflect that Contractor will have primary role of performance and State will have primary responsibility for oversight of design and participation in design review process.
8.0	Abbreviations, Acronyms & Definitions	Several existing definitions will need to be revised to reflect DB and DB-specific terms will need to be added.
Part II, Sections 1.0 – 6.0	Federal-Aid and 100% State Funded Projects Procedural Steps	Phases I-IV are applicable to DB as well as design-bid build. Some minor modifications and edits may be necessary. The significant issue to address in Phases I-IV is the level of definition of "the alternative" noted in the text. "The alternative" needs to provide sufficient definition for NEPA/SEQR requirements, but needs to

		allow sufficient flexibility for the DB contractor to pass on the benefits of design-build to the Department (allow different solutions; foster innovation, etc.). Primary revision effort needs to be directed to Phases V & VI. Currently the steps in these phases are a mixture of activities that will be done by the Department and the DB contractor. There are many preparatory activities that the Department will have to do prior to issuing and RFP. The actual design activities (beyond those done during Phases I-IV) will be done by the DB contractor with appropriate Department audit, oversight and review. Some of the current Phase V and VI steps will shift and be done concurrently with Design Phases I-IV, but it appears that the following arrangement should be considered and refined as necessary: Eliminate the current Phases V and VI designations and add the following phases for DB: DB Project Procurement Strategy Process: • Determine project goals & objectives • Identify stakeholders & their concerns/issues • Conduct risk identification, assessment and allocation • Verify that DB is best "vehicle" to achieve stated goals and objectives and risk allocation • Determine level of preliminary engineering to be accomplished by Department in Phases I-IV and during DB Preparation & Qualification Phase. Supplemental Preliminary Engineering & Estimating and DB Procurement & Contract Documents: • Include all steps that can be done prior to receipt of FONSI/DONSE or ROD. • Appropriate steps carried over from current Phases V & VI, including DB estimate. • Preparation and issuance of RLOI and RFQ; • Receipt and evaluation of SOQs and short-listing; • Preparation of RFP documents; • Workshops; and • Issuance of draft RFP for industry review and comment. (Note: The above phases can and should be done

		concurrently with Phases I-IV.) DB Proposal Phase: • Issue RFP and necessary amendments/ addenda; • Respond to requests for clarification; • Technical concept reviews; • Receipt and evaluation of proposals and selection and award; DB Project Execution Phase: • Department's design activities during final design done by DB contractor; and • Department's design activities during construction. Current process requires "pass-off" of design to Regional Construction Group. Need to define role of Regional Design during DB P&E phase if contract to be let and administered by Regional Construction Group – or will a task-organized DB group be set up for design-build? Need to integrate design and construction during DB P&E Phase. Since design "reviews" and "approvals" in the context of the current Phase VI will not occur prior to issuing the RFP and awarding the contract, the timing and meaning of "design approvals" needs to be spelled out. It is questionable whether "Advance Detail Plans" (ADP) will have any real meaning within context of design-build. Suggest using different term for intermediate level of design and redefining – 90% completion milestone typically does not have real significance or application in design-build. The roles and responsibilities of and procedures for FHWA, regional and central office staffs in the design review and approval should be revisited and defined to ensure the processes will still be responsive to "fast track" design-build. For Federal-Aid projects, how will the required certification statement fit in (page Class III-9)?
Appendix A	Federal and State Environmental Requirements, Regulations and	The requirements and guidelines frequently require completion, approval or a permit, certificate or variance before completion of PS&E. Will need to define when such milestones must be met within the context of

	Guidelines for Their Implementation	design-build since the design component of what is normally referred to as "PS&E" will be done by the DB contractor after award of the contract. Some milestones may have to be met prior to issuing RFP; others may be the responsibility of the DB contractor to meet. • COE 404 Permits (pg A-15) • Protection of Bed & Banks of Streams (Article 15 of the Conservation Law) (pg A-16) • Tidal Wetlands Act (pg A-16) • Freshwater Wetlands Act (pg A-17) • Coastal Zone Management Act (pg A-18) • Waterfront Revitalization and Coastal Resources Act (pg A-19) • Coastal Erosion Hazard Area – Article 24 of the Environmental Conservation Law (pg A-19) • Section 10 of the Rivers and Harbors Act of 1899 (COE Permit) (pg A-20) • Section 9 of the Rivers and Harbor Act – Coast Guard Permit (pg A-20) • Wild, Scenic and Recreational Rivers Act (pg A-21) • NYS Flood Insurance Compliance Program (pg A-23) • State Pollutant Discharge Elimination System – Article 17, Titles 7 & 8 of the Environmental Conservation Law (pg A-24) • State Pollutant Discharge Elimination System – 33 USC Subsection 1342(p) (pg A-24) • NYC DEP Watershed Regulations – Final Stormwater Pollution Prevention Plans (pg A-24) • Section 6(f) – 16 USC 4601 (pg A-33) • Adirondack Park Agency Act – Section 814 Review (pg A-33) • Indirect Source Permits (pg A-37) • Clean Air Act, Occupational Health & Safety Act, New York State Labor Law – Asbestos Removal Variance (pg A-39) • RCRA, CERCLA, SARA, etc - remediation approval - (pg A-40) • Mined Land Reclamation Law - (pg A-41) • Solid Waste Management, Navigation Law - (pg A-41)

Appendix B	Format and Content of Design Approval Documents	
1.1	Discussion (pg B-4)	2nd paragraph: "contract documents" for design-build will include other documents besides plans and specifications, but will not include plans and specifications to the same level as in a design-bid-build project and will not include the "estimate".
2.2.3	Procedures (pg B-SD 1)	Design Phase designations and contents will change for design build, especially for the current Phases V and VI. See discussion for Part II.
2.3.4	Procedures (pg B – SD 3)	2nd paragraph: See comment for Section 2.2.3.
2.5.4	Procedural Steps (pg B –SD 7)	4th paragraph: See comment for Section 2.2.3.
2.6, IV	Feasible Alternatives (pg B – SD 13)	Proposed solution should be described in such a way to allow sufficient flexibility for variations in solutions design-builders may propose.
3.3	Format & Content of Design Report, III.C.2.h Maintenance and Protection of Traffic (pg B – DR 34)	Should refer to maintenance and protection of traffic "criteria" not the specific plan. Preparation of the plan is typically a design-builder responsibility. If prescribed by Department, the plan may artificially constrain and control the design-builders' solutions, schedule and cost.
5.3	Format and Content of DR/EA, III.C.2.h Maintenance and Protection of Traffic (pg B – EA 35)	See comment for Section 3.3.
7.3	Format and Content of DR/DEIS, III.C.2.h Maintenance and Protection of Traffic (pg B – EIS 37)	See comment for Section 3.3.
9.2	Content of Plans (Pgs B – P 1 & 2)	Should be reviewed and revised because content of plans in an RFP (the "letting document") are prepared to a lesser degree of completion than for a design-bid-build project. Need to allow sufficient flexibility for design-builder and avoid making the project a "draw-build" project where the Department makes all significant design decisions before RFP issued.

9.3	Content of Profiles (Pg B – p 2)	See comment for Section 9.2.
9.4	Content of Typical Sections (Pg B – P 3)	See comment for Section 9.2.
Appendix F	Format and Content of Design Approval Request Memos	
2.0	Content Requirements of Design Approval Request Memos (Pg F – 3 & 4)	#2 gives the impression that all the basic design decisions are already made by the Department, leaving few decisions for a design-builder. Appears there is a need to define what design decisions need to be made within the context of design-build keeping in mind the need to provide for some flexibility and innovation in the DB process. In #5, recommend that the requirement be rewritten to state that the maintenance of traffic (MOT) criteria need to be defined, thus allowing the design-builder the opportunity to propose and implement MOT that satisfies the criteria while supporting the contractors construction means and methods – otherwise Department-imposed MOT methods and plans may be overly restrictive and control schedule and drive cost.
	Example 5 – Design Approval by Regional Director (pg F – 24)	The example indicates that a "concise statement noting the proposed solution" is desired. To make design-build a viable option, wording and the "culture" need to change to reflect that the Department needs to define the problem and allow the design-builder to come up with the solution.
Appendix G	Content of Advance Detail Plans	Since the Department will not be preparing ADPs and the 90% level of design completion is not really an appropriate milestone in design-build (construction often starts earlier in the design process than 90% level of completion), the entire appendix needs to be reorganized and rewritten. The level of design completion represented in the current Appendix G to too high to the design that should be represented in the RFP and too high for intermediate levels of design that may be released for construction during execution of the DB contract. The appendix should define the level of engineering and design (or how to determine what level of engineering and design is appropriate for any given project) for documents to be included in the RFP – the work done during the DB Preparation & Qualifications Phase discussed in comments to Part II of the DPM. The

		appendix may also need to define the required review of engineering and design at this DB phase. Another section of this appendix, or a separate appendix, should define the levels of design or define the DB-type design stages that the design-builder will perform and prepare during DB Procurement and Execution Phase (discussed in comments to Part II), such as: • Level of design work included in proposal documents • "Definitive Design" (first review after award) • Release for Construction (may be several and at a level less than 100% for DB – a level consistent with the contractor's schedule and means and methods of construction • 100% design • As-built design It may be desirable to define required reviews to be done during this DB phase.
Appendix I	Design Procedure Roles & Review Responsibilities	General: The appendix should be reviewed and revised in context of design-build, with special attention to the fact that the design-builder will be doing the final design and that the accelerated design schedule associated with design-build is inconsistent with large formal submittals and lengthy review periods. Main Office and FHWA design approvals during the course of the contract may have serious adverse impacts on schedule and costs. Perhaps the current "design approvals" should relate to approval of the RFP documents and the estimate prepared under the DB Preparation & Qualification Phase discussed in Part II comments. Recommend determining the overall design review process relating to documents developed by the DB designer and then redefining roles and responsibilities accordingly.
2.1	Role of Region (pg I-4)	Current wording indicates that Region produces the project and all documentation. In DB, the DB essentially is the entity producing the project and all documentation. In DB, the "checking" responsibility is typically assigned to the DB designer's organization with checking done in accordance with the DB team's Quality Plan that has been "approved/accepted" by the Department. Department's role shifts to oversight that includes audit of DB team's conformance with Quality Plan and review to ensure compliance with contract requirements.

2.3	Role of Other Main Office Functional Units (pg I-5)	The "approval" process should be examined in light of the accelerated design schedule for DB. Perhaps the "approvals" noted herein would pertain to approval of RFP documents, not the plans and specs developed by the DB team.
3.1	Federal Aid Projects – FHWA Approvals (pg I-6 & 7)	On page I-7, fourth bullet – needs to be revised to reflect that DB team will prepare final plans and specs. Estimate will be prepared by Department during earlier phase of process. References to transmittal of plans, reports, etc. to FHWA DQAB likely to inhibit timely performance under DB and negate one of the primary benefits of DB, namely accelerated project performance. Reviews under DB are typically conducted at the project level with interested parties (FHWA, DQAB, etc) participating in the reviews conducted at the project level. Would it be appropriate to consider that the reviews of the PS&E packages noted currently might be reviews of the RFP packages and estimates for DB?
3.2	Federal Aid Projects – Main Office Approvals (pg I-8)	In Table I-1, is PS&E approval required before construction can start? Approval of final plans and specs at main office level may extend time of performance and release for construction to such an extent that the accelerated performance benefit normally associated with DB would be negated. Perhaps Main Office approval of the RFP package would be more appropriate.
3.3	State Funded Projects – Regional Director Approvals (pg I-9)	See Section 3.2 comment – essentially applies to Plan Title Sheet and final PS&E approvals by Regional Director.
3.5	Main Office Advisory Reviews (pg I-10)	Needs to be revised to reflect that Region will not be designing the projects, DB team will. Typically DB designer will be responsible for "checking", providing documentation and quality control. The purpose and implementation of "advisory reviews" should probably be re-examined and redefined.
3.5.2	Structures Design and Construction Division Technical Reviews (pg I-12)	Based on decision on how design review process will work for DB, this section will likely need revision to reflect Structures Division participation is review of designs done by DB team – but not ADPs and PS&E as stated herein. Concern about timely participation and response is real.

3.5.4	Technical Services Division Technical Reviews (pg I-12 & 13)	Extensive formal submittals and formal reviews are inconsistent with normal DB processes. Time and delays likely to become an issue with State incurring unnecessary risk. The purpose of the reviews is supposed to be "advisory" – but under a contract, "advisory" ends up being "directive – leads to Change Orders. The other stated purposes (proper use and detailing of items, lower cost items if available) are within the purview and control of the DB. The purpose of "advisory reviews" would need to change if they are retained at all.
3.5.4.1	Geotechnical Engineering Bureau (pg I-13)	The DB team is not likely to develop its designs in context of ADPs – not a realistic milestone for DB. DB team will develop designs beyond the level represented by RFP documents. Since DB has primary responsibility and liability for constructability and the finished product, the purpose of the reviews may need to be redefined.
3.5.4.2	Materials Bureau (pg I-13)	Reference to ADPs is probably not appropriate. See comments for Section 3.5.4.1.
3.5.5	Traffic Engineering & Highway Safety (pg I-14)	In the second paragraph, involvement "throughout the design stage" needs to be clarified since DB team will be doing the bulk of design (except limited preliminary design).
3.5.7	Real Estate Division (pg I-15)	See 3.5.5 comment. In DB, advisory reviews would be most beneficial up until RFP is issued.
3.6	Other State or Federal Agency Reviews (pg I-13)	Need to re-examine and rewrite within context of DB design review process, considering the responsibility of DB teams to coordinate with agencies and to obtain certain permits.
3.7	Review Times (pg I-16)	Given the accelerated and segmented design development and release for construction (project components are typically developed a separate entities – not entire projects – and components are released for construction in "pieces", not finished products) associated with DB, the current review times would essentially negate one of the primary benefits of DB, accelerated delivery. Procedure needs to be consistent with the fact the DB team will show design reviews on its schedule and that the Department will be contractually bound to participate and provide comments relating to the reviews at the time indicated on the schedule and within the time frames specified in the contract.

3.7.1	Review Time Requirements (pg I-16)	In the typical DB project, the primary review takes place at the project level without formal submittals being transmitted to other offices for review; functional units are typically invited to participate in project level reviews to minimize review times. Reviews are typically done concurrently with the DB Design Q/A organization. Need to carefully consider and define what is "adequate" considering the accelerated DB design schedule and the different role the Department in DB design reviews. Many DB projects have 7-10 day time allowances for owner review. Longer periods can lead to significant schedule problems and drive up costs. The procedure states that a job manager cannot unilaterally establish the review times. In DB, the Department cannot unilaterally extend review times because the review time allowed is a contractual provision – any extension would be a delay and subject the Department to delay costs and project time extensions.
3.7.2	Reviews by the Design Division's Design Quality Assurance Bureau (DQAB), Liaison Section (pg I-16)	Will need to determine and define what "submittals/submissions" will be under DB. Typically have few, if any formal submittals/submissions. Preparation and distribution is costly and time consuming. Review times typically are not subject to "negotiation" but are stated in the contract provisions. Likely need to redefine how DQAB will be involved in DB. The two-week and four-week (or longer) time frames in the current procedure would be "schedule breakers" for DB and negate a primary benefit of DB – especially considering the number of reviews that are normally held in a DB project.
3.7.3	Reviews by the Design Division's Landscape Architecture Bureau (LAB) (pg I-16)	See comments on Section 3.7.2.
3.7.4	Structures Design and Construction Division (SDCD) (pg I-17)	If primary timesaving benefit of DB is to be realized, a means of expediting the review process needs to be provided. The four- and six-week review times would be DB schedule killers. See also comments on Section 3.7.2.

3.7.7	Traffic Engineering & Highway Safety (pg I-18)	Review times are within acceptable range, but shorter would be better. See comment relating to "submissions" in Section 3.7.2 comment.
4.0	Project Reviews and Comment Resolution	
4.2.1	Level I Comments (pg I-20)	Third bullet: If Department recommends an approach to resolving a non-conformance it essentially assumes the risk for the viability of that solution – may also be interpreted as directive – and may result in claim or change order. In DB, if further processing of the project (design progress) is put on hold, it is essentially the same as issuing a stop work order on a D-B-B project with the Department likely incurring significant delay and $ risk.
4.2.2	Level II Comments (pg I-21)	Any such "suggestion" to a DB team is liable to result in a Change Order or claim with Department assuming liability for adequacy of the design and final product.
4.3.1	Level I Comments (pg I-21)	Level I comments relate to the stated items plus the contract documents. Need to reword within context of DB team doing design – not the Region. The DB team should be the entity addressing any comments. Need to eliminate or explain how the "appeal" process would work in DB.
4.3.2	Level II Comments	Needs to be revised within context of design-build. The "intent to improve the overall quality" essentially puts the Department in a position of directing a change to contract requirements or the DB team's proposal – with the Department assuming time and cost risks associated with same. See 4.2.2 comment.

Highway Design Manual

Compatibility of Highway Design Manual with Design-Build Procurement

Chapter/Section	Title	Reason to Change
Chapter 1	Purpose	No comments
Chapter 2	Design Criteria	No comments
Chapter 3	Typical Sections	• The current text notes that final solutions will be developed in consultation with specified Regional and Main Office functional specialists or units. Needs to be revised for DB because the DB team is responsible for developing solutions. The functional specialists/units should participate in defining the problems and establishing acceptable criteria to guide the DB team – also should participate in over-the-shoulder reviews or other reviews as appropriate to verify that DB team work complies with contract requirements. • References to specific specifications may not be appropriate if specifications are revised for DB or if performance specifications are developed and used.
Chapter 4	Design Criteria and Guidance for Bridge Projects on Low Volume Highways	No comments
Chapter 5	Basic Design	
5.4.2	Terrain Data Products	Note that DB team may be responsible for obtaining terrain data to meet its design & construction needs.

5.5	Right of Way	Recommend distinguishing between the "preliminary designer" (State) and "final designer" (on DB team). ROW needs will still be defined by State. • Will need to define how additional ROW requested by DB team will be handled – can be covered in DB Procedures Manual.
5.5.2	Right of Way Determination	May need some revision to indicate that, where feasible, ROW limits should be established that allow flexibility in determining the final design solution developed by DB team.
5.6	Construction Cost Estimates	Title and text need to be revised to reflect that a "design-build estimate" is needed – quite different that the normal "construction estimate". Estimates should be developed in the same format as price proposals will be submitted – typically not in quantity and unit price format. May need to write estimating procedures for design-build.
5.6.3	Responsibility and Schedule	The milestones listed are inappropriate - #4 & #5 should be deleted – DB team will do design beyond preliminary. RFP submission is when another estimate will be needed.
5.6.4.1	Cost Estimating System (CES)	Existing estimating programs may not be appropriate. They do not include all cost components of design-build and are typically based on quantities and unit price history.
5.6.4.1A	Preliminary Estimate Program (PEP)	This may be the level of estimating that can be done for the design-build estimate, because detailed quantities are not available and different price factors need to be considered.
5.6.4.1B	Price Estimating System (PES)	Likely to be inappropriate because good estimates of quantities are not available because DB team will be doing advanced and final design. Also Regional bid prices from design-bid-build projects may not be appropriate for DB.
Chapter 6	Interchanges	No comments

Chapter 7	Resurfacing, Restoration & Rehabilitation (3R)	No comments
Chapter 8	Highway Drainage	
8.8	Erosion and Sediment Control and Stormwater Management	Revision needed to account for the fact that final plans (PS&E) will not be developed by the State. The DB team will develop final plans and specifications, which will be the basis for erosion and sediment control and stormwater management. Final plans and all plans released for construction prior to completion of final design need to have appropriate E7S Control/Stormwater Management included in the construction package.
8.8.2.1	Erosion and Sediment Control Guidelines	In third paragraph, statement #3 will need revision to reflect that advanced and final design will be done by DB team and that Design Phases V and VI will be redefined (even renamed) to reflect what must be done before issuance of the RFP and what work will be the responsibility of the DB team. The statement indicating that "The plan will not be left for construction personnel to develop" may be interpreted to be overly restrictive and prohibit the DB contractor from having any input.
8.8.2.2	Erosion and Sediment Control Plan	It may be more appropriate to refer to "criteria" that the State would develop, rather than the E&S plan – that is developed by the DB team – considering that required components of the E&S plan (dimensions, details, etc) will not be available when the RFP is issued and must be developed by the DB team. On pg 8-102, it may be more appropriate to indicate the State will develop criteria and a preliminary E&S plan. DB would result in Items 2 – 5 being a DB team responsibility – subject to State review.
8.8.3.1	Contents	Should indicate that the SPDES Stormwater General Permit be included in the RFP by reference.
8.8.3.1A	Part I Coverage Under This Permit	Under "Authorization:, need to define what will happen and when under DB – the design-bid-build process and timing does not work with DB.

8.8.3.1C	Part III Stormwater Pollution Prevention Plans	Timing and procedures do not fit DB. References to PS&E submittal should probably refer to the RFP submittal. Some responsibilities may need to shift from the State to the DB team. Some items, such as detailed plan sheets, will not be available until developed by DB team. Will need to work through the Contractors – Bidder's Certification Form – maybe revise. Specific details and requirements are unknown at time the RFP is issued. References to the bid package and PS&E package should probably refer to an "RFP package".
8.8.3.1E	Part V Standard Conditions	Some of the information referenced under Signatory Requirements is not available for the RFP.
8.8.3.1F	Part VI Termination of Coverage	Need to clarify which designer (State or DB) fills out NOT. Timing in question since final plans and specs will not be available at RFP issuance.
8.9	Drainage Report	Report preparation should be a DB responsibility. Timing of requirements need to be revised since required information will be developed by DB team after award.
8.10.1	Plans	Needs to be revised to reflect that plan preparation will be DB responsibility and will occur after award. Plan requirements need to be specified in the RFP.
8.10.2	Specifications	Standard Specifications may need revision, especially in measurement and payment since many work items are lumped together in DB and DB is typically priced lump sum – without measurement of quantities. The text should reflect that the Standard Specifications are included in the RFP package, but that "Project Specifications" (to be reviewed by the Department) may have to be developed by the DB team to reflect its particular design and construction means and methods.
8.10.3	Special Notes	Need to provide in an "RFP package", not PS&E.

Chapter 9	Soils and Foundations	General: The text is written on the premise that the Geotechnical Engineering Bureau, the Regional Geotechnical Engineer and other State specialists have a significant role in making recommendations and determining the solutions to soils and foundations problems. The roles and responsibilities of the DB team and the Department specialists need to be determined and documented. If the Department staff continues to make design recommendations and provide solutions, the State will retain risk and liability for the solutions provided. The State specialists need to concentrate on defining the problems and establishing the criteria under which solutions can be developed by the DB teams – and for participating in reviews as appropriate.
9.1	Introduction	Many of the roles and responsibilities assigned to State specialists need to be transferred to the DB team.
9.2.1	Geotechnical Reports	Text states that reports (currently provided by the State) must include recommendations to deal effectively with particular local soil conditions. State-generated recommendations result in State retaining risk and liability for those recommendations – DB should have responsibility for generating recommended solutions within parameters defined by State.
Table 9-4	Preliminary Design (Phases I through IV)	The level of investigation and analysis should be determined for each project based on the risk analysis and allocation for that project – may vary considerably from project to project.
Table 9-5	Detailed Design (Phase V)	The table will likely need revision to accommodate different division of responsibilities. DB team will be performing detailed design. # 1 (Regional Design Group), ADP work will be responsibility of the DB team. # 2 (Regional Geotechnical Section) DB team will prepare Geotechnical Report. Role likely to change to establishing parameters under which DB team will perform the work indentified. # 3 (Geotechnical Engineering Bureau) Depending on risk analysis and allocation, much of the work shown for the GEB will likely be performed by the DB team.

Table 9-6	PS&E/Letting (Phase VI)	The table will likely need revision to accommodate different division of responsibilities. DB will perform final design, but estimates will be done at an earlier stage in design development. # 1 (Regional Design Group): Geotechnical Report will be prepared and used within the DB team, subject to review by the Department. #2: (Regional Geotechnical Section): DB will prepare Geotechnical Report. The Regional Geotechnical Section will likely continue to compile information and data for the RFP, but at an earlier stage of design development. #3 (Geotechnical Engineering Bureau): Role may change for DB – to be defined.
Table 9-7	Construction	In DB, the owner's role usually shifts from one of managing, controlling and testing to one of oversight with verification sampling and testing and Independent Assurance. Much will depend on roles of Department and DB team regarding QA/QC. #1 (Regional Construction Group): Sampling and testing requirements will depend on allocation of QA & QC responsibilities in DB. Also, "advisory" role will need to be clearly defined. Department "advice" to DB team may be construed as "direction" that may transfer risk and liability to Department. #2 (Regional Geotechnical Section): Providing testing, equipment, training and reports usually a DB responsibility. #3 (Geotechnical Engineering Bureau): Many of the listed activities are typically assigned to DB with oversight, verification and audit by owner.
9.3	Soil and Foundation Considerations	General comment: The text should reflect that the role of the Department's functional specialists and units needs to shift from providing solutions and recommendations (particularly during advanced and final design) to defining the problems and establishing the criteria and parameters (during earlier phases of design development) that will govern DB activities and to overseeing DB performance. If the Department provides the solutions, it retains liability for those solutions and

		negates the designer/contractor interaction associated with design-build. References to mandatory consultation with functional specialists and units for work done by DB team are not appropriate.
9.4	Contract Information	
9.4.1	Earthwork Summary Sheet	Since the DB team performs advanced and final design and therefore determines the quantities, quantity estimates are rarely included in DB RFPs – and if so, only in Reference Documents. With few exceptions, all work is paid on a lump sum basis. Classification of excavation is likewise rarely included in RFPs. Therefore reference to the summary sheets is probably not appropriate, unless some revised form of summaries is prepared for inclusion in the Reference Documents.
9.4.4	Proposal	The term "proposal" as used appears to be the compilation of certain documents that the Department issues to contractors for preparing their bids. In design-build, "proposal" usually means the written documents and prices submitted by the DB team in response to an RFP. In any case, quantities are not usually included in the RFP except some may be presented in Reference Documents. The design is not sufficiently complete (nor should it be) to estimate quantities for all work.
9.4.5	Plans	#1 (Typical Sections): Design has not progressed sufficiently at issuance of RFP to identify "payment lines" with any degree of certainty. Since quantities are not normally shown or measured for payment in design-build, "payment lines" have no real meaning in the context of DB. #2 (Subsurface Explorations): Plans may or may not define locations of rock outcrops, depending on level of engineering and design represented in the RFP plans. #3 (Bridges): Design decisions normally left to DB team – any constraints need to be identified in RFP. Geotechnical information may be provided by Department, DB team or both. #4 (Retaining Walls): Several items listed should be DB responsibility, especially those in the latter

		half of the first sentence. See also comment on Section 9.3.
Chapter 10	Roadside Design, Guide Rail and Appurtenances	No comments.
Chapter 12	Highway Lighting	
12.10	Lighting Report	Any Lighting Plan developed during advanced or detailed design would be responsibility of DB team. Should examine whether twp reports are needed or just a final. Will the third paragraph activities by a Department or DB responsibility. If a DB responsibility, needs to be clear whether it is a requirement or a suggestion.
12.10.1	Preliminary Lighting Report	The report needs to be done prior to issuing the RFP, the appropriate DB milestone (ADPs not a good DB milestone). The designer (Department) should focus on establishing criteria and performance specifications to govern the work – not on providing detailed solutions, such as light source size, mounting height, etc.
12.11	Plans and Specifications	"Complete plans" will not be available at issuance of RFP. Complete plans and final "project specifications" will be prepared by DB team.
12.11.1	Plans	The lighting plans and details will be prepared by the DB team. The information in the RFP needs to define the general requirements and parameters in sufficient detail to allow the DB team to design and construct the work. Fewer sheets (if any) will be required for the RFP. A performance specification should be sufficient.
12.11.2	Specifications	Quantities and individual pay items are not provided in DB with few exceptions (such as for hazmat remediation). May require additional coordination with NYC.
Chapter 13	Utilities	
13.06	Detail Steps for Design	Item D: ADPs won't be done by Department. Department work needs to be shifted to "pre-RFP" (Supplemental Preliminary Engineering &

		Estimating as discussed In comments on DPM, Part II). Item F: Should refer to "potential utility relocations – DB will determine final utility relocations. Item H: As discussed in comments to DPM, Part II, Phases V and VI will need to be revised for DB. Item I: The timing noted is not appropriate considering the DB team will be doing final design. Resolutions and Agreements should be executed before issuing RFP if at all possible. Approvals by utility companies must be worked into the DB process – will likely come during course of contract, not prior to issuing RFP. Need to accommodate DB team doing design and/or construction of relocations.
Chapter 14	Resolutions and Agreements	In the entry "When Obtainable", where it currently shows Phase V, should be changed to "Before RFP"; where it currently shows Phase VI, should show DB Execution Phase (see discussion regarding changes to name and activities for Phases V and VI in DPM, Part II). Should also include example agreement where DB will design and/or construct utility relocation(s). Under "Resolution for Approval of Plans and Specifications of Arterials through Cities" (pgs 14-9 & 10), need to establish when this will occur. Plans and specifications will not be done before issuance of RFP. If cities anticipate approving final plans before construction starts, this could significantly jeopardize and negate one of the primary benefits of DB – accelerated completion.
Chapter 15	Maintenance Jurisdiction	No comments.
Chapter 16	Maintenance of Traffic During Construction	
16.01	General	Pg 16-2: 1st paragraph: Rather than providing a suggested "plan" in the RFP, should consider providing MOT criteria in

		form of performance specification. Difficult to provide a plan when the design is at a very preliminary stage with few details known. MOT, like most work under DB, is normally paid on lump sum basis – not by quantity used. 2nd paragraph: Performance specifications should spell out Department expectations, but actual approach should be included in DB team's "proposal" and evaluated as part of selection process. Many details required for development of MOT plan not known when RFP issued. 6th paragraph: Should refer to performance specifications rather than plan – with approval required to change "proposal" submitted by DB. 7th paragraph: Letter referenced will be required prior to issuing RFP, not PS&E. Page 16-3: 3rd paragraph: Should refer to performance specification rather than plans.
16.02	Signing	On page 16-4, 2nd paragraph – should require DB team to provide the detour layout for Department review. Developing specific MOT plans should be DB responsibility.
Chapter 18	Facilities for Pedestrians and Bicyclists	Guidance and coordination efforts need to occur prior to issuing the RFP, for the most part.
Chapter 19	Reinforced Concrete Box Culverts and Similar Structures	
19.1	Introduction	Pg 19-1: If computer programs noted in 5th paragraph are not commercially available, will they be made available to DB teams?

		Pg 19-2: In the 2nd paragraph of the "culvert" definition, need to clarify that assistance from Structures Design & Construction and Regional Hydraulics Engineer will be available to Department staff prior to issuing the RFP – typically not available during DB performance except for reviews/comments.
19.3	Foundations	Structures Design & Construction Division available but in different role or mode than for design-bid-build – available typically while developing the RFP.
19.3.1	Rock	1st paragraph: This is a DB team design decision based on parameters established by Department in the RFP.
19.3.2	Earth or Granular Soil	4th and 5th paragraphs: Roles of Regional Geotechnical Engineer and Geotechnical Engineering Bureau should be involved in establishing parameters and identifying problems prior to issuing RFP. Activities currently noted in these paragraphs fall within DB team responsibilities.
19.5	Computer Design and Analysis Program	It is presumed that computer program(s) are commercially available – but Department should not provide advice to DB team on how to use them.
19.6	Design and Details of Concrete Culverts	2nd & 3rd paragraphs: 45-day time limit too restrictive for DB. Design work will be just underway. Need to decide if State will continue to "approve" or will this responsibility be transferred to DB team.
19.6.1	Contract Plans	Need to clarify whether the requirements refer to RFP plans developed by the State or final plans developed by the DB team. The current list is too detailed for RFP plans.
19.11	Aprons	3rd & 7th paragraphs: Need to redefine roles of Regional Hydraulics Engineer and Structures Design and Construction Division – different for DB.
19.12	Subbase Drainage	5th paragraph: DB should select material that meets parameters established in RFP. Materials Bureau would likely be involved in specifying parameters.

Chapter 20	Cantilever and Gravity Walls	
20.01	General	The roles and responsibilities of the State's functional specialists and units and the DB team need to be thought through and revised. In DB, if the State retains design decision-making, it retains risk and liability and may inhibit innovation and creativity – features often looked for in DB. The level and extent of review by the State may need to be redefined.
20.02.02	Method of Design (pg 20-5)	In the first full sentence at the top of the page it indicates that special design and review should be requested from Structures Design and Construction Division. While SDCD may need to make a special review, the actual design needs to be a DB team responsibility.
20.02.03	Design and Detailing Sequence	#3 & #10: The DB team should be responsible for the listed tasks & activities, subject to State review. The specified requirements in other items should be examined to see if they are too prescriptive. If the DB is required to comply with the detailed requirements, the State may retain liability and risk. There appears to be little flexibility.
Chapter 21	Contract Plans, Specifications and Estimates	Comments made herein are intended to reflect what plans, specifications and estimates need to be prepared for the RFP (or before it is issued). If the contents of plans and specifications prepared by the DB is to be spelled out in the HDM, that also needs to be addressed.
21.1	Introduction	Needs to be reviewed to reflect that information needs to address what will be required for RFP, not "PS&E" as envisioned in the current text.
21.2	Plans	The plans in the RFP will not be completed to the same level or detail as "PS&E" documents.
21.2.2	Contracts with Plans	Item 2 – Sheet Format: Should reference an RFP submission, not PS&E. Item 5 – Pay Item Numbers: DB contracts typically do not have "pay item numbers" as typically understood for design-bid-build projects. With few exceptions, work items are grouped and are lump sum.

21.2.2.1	Accuracy	Plan quantities are not normally included in RFPs. Plans and plan dimensions are developed on the basis of the level of design developed at the RFP stage, not always related to the survey data collected. Survey data may be quite accurate, but plans only developed to a conceptual stage.
21.2.2.2	Order of Sheets	At the RFP stage, some typical sheets found in D-B-B packages are not included, such as Estimate of Quantities, Traffic Control Plan (requirements included in a performance specification), Miscellaneous Details, Earthwork Summary Sheets, etc.
21.2.2.3	Title Sheet	Item 5 – Contract Number: Should refer to RFP submission. Item 6 – Signatures: Should refer to RFP instead of PS&E. Plans will not be approved at RFP stage – or at least any "approval" will have a different meaning than "approval" of PS&E. When approvals by County & local government will be obtained (a what their approvals mean) need to be spelled out.
21.2.2.6	Estimate of Quantities	Typically not a part of the contract. DB team does the design and determines final quantities. If payment based on quantities, DB team could inflate cost of contract by increasing quantities through their design process. If any quantity information provided with RFP, usually go in Reference Documents.
21.2.2.9	Traffic Control Plan	For DB, better to spell out criteria in a performance specification and require DB team to develop TCP, subject to State review.
21.2.2.11	Miscellaneous Tables	Number of tables can be reduced because level of design at RFP stage normally much lower than for PS&E. Some information not necessary or not desirable for RFP.
21.2.2.13	Earthwork Summary Sheets	Not included in an RFP. DB team generates any earthwork summary sheets for its own use. Earthwork classification not normally included in DB RFP. DB team responsible to determine this information.

21.2.2.14	Special Plans	Given the degree of design completion at the RFP stage, Special Plans are probably not warranted, with the exception of ROW plans.
21.2.2.16	Signs and Sign Structures	Current list would apply to PS&E and perhaps to DB team's final plans – but not applicable at RFP stage. Sign and sign structure requirements typically spelled out in performance specifications or design criteria, not plans.
22.2.2.17	Traffic Signal Plans	See comment for 21.2.2.16 – applies here as well.
22.2.2.19	Pavement Marking Plans	See comment for 21.2.2.16 – applies here as well.
22.2.2.20	Utility Plans	For RFP need to show location of existing utilities and perhaps some predetermined relocations. Most final relocations should be left up to DB team.
21.2.2.21	Large Culvert Details	Details of the nature listed not required or desired at RFP stage. Spell out requirements in performance specifications and/or design criteria.
21.2.2.22	Retaining Walls	OK to refer to Regional Geotechnical Engineer during RFP development.
21.2.2.23	Bridge Plans	RFP information should be prepared including guidance from Structures Design and Construction Division.
21.3	Specifications	The text should also include "Design Criteria" and "Performance Specifications". Text refers to "proposal" in a manner that indicates the "proposal" is what the State prepares to go out to contractors. Will need to determine desired terminology. In DB, the "proposal" is the contractor's submission in response to an RFP. The text should make mention that the DB team may develop "Project Specifications" based on design criteria, performance specifications, standard specifications, etc. that address the specific design and construction means and methods the DB team intends to use. It is likely that several "special specifications will be required, particularly if the Standard Specifications are not edited and reissued as "DB Standard Specifications".

21.3.1	Control Report or Addenda Catalog (Specification Status)	Pg 21-22: Item Number – DB typically does not have item numbers in the context of Standard Specifications. Payment is often tied to Work Breakdown Structure numbers or codes and relate directly to the DB team's work schedule rather than quantities. Pg 21-23: PIN, Disapproval or Approval Date – DB typically does not have pay items in the traditional sense, and the work breakdown structure (essentially the basis of payment) differs for each project.
21.3.2	Special Specification Approval Process (Transmittal Memo Content)	References to PS&E should be changed to RFP. Text needs to cover how Design Criteria (specifications) and Performance Specifications will be handled. Text needs to address how "Project Specifications" (prepared by DB team) will be handled.
21.3.3	Special Specifications Format	Pg 21-26 and 21-29 (Item 4 – Method of measurement): DB usually set up so that little or no measurement for payment is required. Pg 21-30 (Item 5 – Basis of Payment: Unit prices rarely used in DB. Revise as necessary to meet agreed basis of payment. Pg 21-31 (Item 1 – Pay Item): Since basis of payment for DB is usually different than for D-B-B, this item will need to be revised to be consistent with agreed basis of payment.
21.3.5	Salvage Items	Pg 21-37 -Item 3: Reference to PS&E should be changed to RFP.
21.3.6	Composite Specifications	Pg 21-38 (2nd paragraph): In second sentence, "variations in quantities" have no bearing on the issue in DB. Quantities typically not provided or measured for payment.
21.3.7	Changed Conditions Clause	Pg 21-38 - Item 1: Variations in quantities not applicable in DB with few exceptions.

21.3.8	Pay Item Selection	In DB, "Pay Items" usually based on contractor's Work Breakdown Structure, major type of work, etc – not individual items of work as in D-B-B. Upon determination of payment provisions, text should be revised.
21.3.8.5	Price Adjustments	Since DB contracts typically do not have quantities or unit prices, alternate means of determining price adjustments need to be included.
21.3.8.6	Section 699 - Mobilization	4% may be low, especially considering cost of mobilizing project management staff and design staff – which costs are incurred quite in advance of payment for any construction work – the higher ticket items.
21.5	Engineer's Estimate	Quantities and unit prices usually not included in DB – need to determine basis of estimating.
21.5.1	Content (Engineer's Estimate and Shares)	Item 1: Quantities not provided or used in DB except for rare exceptions, such as hazmat remediation. Item 2: Will need to determine how shares will be calculated under the DB cost estimating system chosen.
21.5.2	Design Detail Computation Sheet (Form DIST 22)	If quantities not used in DB, need to revise form & procedure to match selected estimating and payment process.
21.5.3	Betterments	References to PS&E should be changed to RFP. Item 3: Need to address how increased quantities will be handled if "initial quantity" not provided or included in contract. Item 5 (Pg 21-49): Several other items need to be addressed and included, namely design & engineering, QA/QC, safety, project management, bonds, insurance, etc.
21.5.4	Engineer's Estimate Handling System	Need to determine how EEHS will mesh with DB estimating. Reference to PS&E should be changed to RFP.

21.5.6	Confidentiality of the Engineer's Estimate & Unit Bid Prices	Unit bid prices may not be applicable with few exceptions.
21.7	Supplemental Information Available to Bidders	Item 1 – Utilities Estimate Sheets: Includes quantities – not included in DB contract. Item 4 – Earthwork Sheets: Quantity information not provided in DB or included in contract. Item 5 – Drainage Estimate Sheets: Same as Item 4. Item 6 – Sign Face Layouts: Design not progressed to this detail at RFP stage. Item 7 – Subsurface Information: Type and amount of information provided at RFP stage may vary depending on risk assessment and allocation and level of preliminary engineering to be done during RFP preparation. Typically limit amount of interpretive information at RFP stage.
21.8	Cross Sections	RFP information typically does not include excavation classification or quantities by classification. Owner normally provides raw data and requires DB team to interpret the data.
21.9	Final PS&E Submission	Should be changed to the "RFP Submission". In addition to any paper copies, should consider transmittal via CD ROM.
21.9.2	Submitted Materials	PS&E should be changed to RFP. Will DB Estimate that is not based on quantities and unit prices and includes design and engineering and other work not included in D-B-B estimates be compatible with BAMS?
21.9.2.2	Proposal Materials and Forms for Project Processing	The materials and forms will likely change from the standard D-B-B PS&E submission.

Table 21-3	DBE Goal Assignment Table for Federally Funded Projects (pg 21-61)	May need to examine if percentages change due to different work included in DB that is excluded from D-B-B, such as design & engineering.
Table 21-4	Minority Business Enterprise (MBE) Goals and Women's Business Enterprise (WBE) Goals – 100% State Funded Projects (pg 21-62)	See comment for Table 21-3.
21.9.8	PS&E Transmittal Memo	References to PS&E should be changed to RFP.
21.9.3.2	Content	See comment to 21.9.8. Item 2 should also include "design". Item 7 (pg 21-68) In 5th & 6th paragraphs, time between pre-bid (pre-proposal) meeting and "letting date" should be longer due to additional work required to prepare & submit a DB proposal. On pg 21-69, list of agenda items need to be revised for DB. Item 12 (pg 21-71): Advertisement length needs to be extended due to additional work, especially in engineering & design, for DB proposal.
21.10	Amendments	References to PS&E should be changed to RFP. References to errors in quantity computations probably not needed.
21.10.1	Deadlines	Definitions (pg 21-76) should be revised. Since there are far fewer plan sheets in DB RFP (with result that scope and nature of work represented is more condensed), a single sheet may represent a "major" change. References to quantities should be deleted. DB contracts typically have far fewer pay items than a D-B-B contract, therefore number of pay items should not be a measure of "major" or "minor". A single pay item on a DB contract may be "major".

21.10.4	Special Specifications, Pay Items, and Quantity Changes	Quantity changes should not be published in an Amendment since Quantities are not included in the RFP, except under unusual circumstances. Pay Item changes should not show quantities.
21.11	Prebid Questions	Prebid perhaps should be changed to "Preproposal". References to PS&E should be changed to RFP.
21.12	Project Reletting	Needs to be rewritten to reflect that the receipt, evaluation and selection process for DB is completely different than "letting" for a D-B-B contract. In DB, proposals are not opened and publicly read. Selection likely not based on low bid. DB evaluation and selection procedures typically allow for clarifications, discussions, and best and final offers without "reletting" the entire project.
21.13	Design Data to Be Supplied to Construction	The level of design information available at the RFP stage is significantly less than at PS&E for a D-B-B project. Text should be revised to reflect what "Construction" will receive. Text should also reflect that "Construction" in the context of this section would mean design and construction representatives of the State assigned to the project.
21.14	Material to Be Supplied to Successful Bidder After Award	The list needs to be revised to reflect the type of information that will be available at the RFP and DB proposal stage. Much of information currently listed will not be available. Consideration should be given to distributing much of the information in electronic format (such as CD-ROM)to facilitate rapid design mobilization and start-up.
21.15	References	List may change, especially those references that are revised to incorporate DB policies and procedures.

Appendix A	Contract Plans, Specifications and Estimate: PS&E Preparation for Buildings on State Financed Contracts	References to PS&E should be changed to RFP. Need to explain how buildings will be designed and constructed under DB given the requirements of Section 135 of the State Finance Law.
Appendix C	Contract Plans, Specifications and Estimate: Forms	The type and nature of "Supplemental Information Available to Bidders" (Proposers) likely to change under DB and should be reflected in the text.
	PS&E Transmittal Memo	Should be changed and revised to be an RFP Transmittal Memo. Contents likely to change, such as: Engineer's Estimate and List of Attachments "Construction Supervision" should be changed to "Design and Construction Oversight" – State should not "supervise" DB team "Design approval" should probably be "RFP approval" Length of advertisement should be extended Incomplete items – there are "lots". Might be better to list "Completed Items" to reduce the risk of leaving something out of the "incomplete items" list.
Chapter 23	Railroads	Need to examine who does what and when for whole DB process with respect to Railroads.
23.1	Introduction	Need to define how DQAB will interact with DB Team and railroads to obtain project approvals and agreements. Railroad is set up to review plans developed by State, not DB team.
23.5	Metrication of Railroad Plans and Specifications	Since DB will be responsible for project design, needs to have a role in reviewing plans prepared by railroad that may affect its design and construction.

23.9	Detailed Design	Since "advanced detail plans" are not likely to be a "milestone" for DB, need to redefine what will be required for railroad review and what their criteria will be for "approval". This information needs to go in RFP. Need to identify State's role before and after RFP and award.
23.10.1	Clearances (pg 23-15)	(Last paragraph) Need to redefine role & responsibility of GEB since DB will be responsible for design. Need to define DB team role and responsibility.
23.10.2	Drainage	Need to spell out when culvert design must be sent thru HRU for railroad approval.
23.10.4	Alterations to Railroad Facilities	2nd paragraph: DB will do design work, not Regional Design or consultants under contract to State.
23.11.1	Project Coordination	HRU input required at RFP stage regarding layout of grade crossing. Change in timing of their input.
23.11.2	General Design Considerations	Pg 23-23, 1st paragraph: Need to define what technical assistance will be available from FEDD to the DB team, if any, and how such assistance fits in contractually with respect to risk and liability for the final product. Pg 23-24, 2nd paragraph: Text needs to reflect that the advice, consultation and input needs to be made to State designers before the RFP.
23.11.3	Geometric Considerations	Pg 23-25: Item 3: Need to define what, if any, role DB team will have in field coordination. Item 6: If DB team is going to do the work, text needs to reflect that the requirements need to be in RFP – not during detailed design that is done by DB team after award.
23.11.5	Crossing Surface	Pg 23-26: At end of paragraph, text needs to reflect that any DSB assistance in trackwork and surface design must come during preparation of RFP, except for any review functions during the contract.

23.12	Plan Requirements for Work Affecting Railroads	Pg 23-27: Text needs to be revised since it is likely that "advanced detail plans" will take on entirely different meaning under DB and will not be done by State. Will be DB responsibility. Pg 23-28: 3rd paragraph: HRU input for maintenance needs to be made during RFP preparation. Department not likely to be designing crossing improvement – DB responsibility. Relationship/responsibility of DSB needs to be clarified under DB scenario. 4th paragraph: Special notes need to be provided in RFP.
23.13.1	Excavation on Railroad Property	Preliminary determination of whether excavation activities will impact railroads needs to be made during RFP preparation – even if it means taking design to a higher level of completion than normal in that particular area. Reference to Phase V inappropriate for DB.
Chapter 24	Mobility Measures	No comments
Chapter 25	Traffic Calming	No comments

Standard Specifications

Compatibility of Standard Specifications with Design-Build Procurement

Chapter/Section	Title	Reason to Change
Section 100	General Provisions	Comments made on Addendum No. 1 of April 8, 1999. In addition to the "standard" Sections 101 though 110, several other sections or provisions may need to be incorporated into Section 100, such as: Design Management and Administration • Construction Management • QA/QC, including sampling and testing specifications and frequencies • Quality Plan • Pricing and Payment • Contractor Provided Facilities and Equipment • Computer Software Requirements • Escrowed Proposal Documents • Stipends • Incentives (including Incentive or Award Fees)
101	Abbreviations & Definitions	
101-01	Abbreviations	Likely that several D/B-related abbreviations will be needed.
101-02	Definitions	Globally, several changes will be required to clean up some terminology, such as "bid", "bidder", etc. Several D/B-related definitions will need to be added.
101-02.3	Award	Not likely that award will be based on "lowest bid" criterion.

101-02.4	Base Line Data	Should delete "contract plans and proposal" and replace with "RFP". Since the "Supplemental Information Available to Bidders" will change in content with D/B, may want to change title to "Supplemental Information Available to Proposers".
101-10	Contract Agreement	Needs to reflect that contract covers design and construction.
101-12	Contract Documents	What will be defined as "Contract Documents" needs to be discussed, but likely will change for D/B.
101-30	Inspector	The Department and Contractor roles in QA/QC need to be discussed and defined. May result in redefinition of Inspector or replacement with a different title.
101-37.1	Payment Limit	In D/B, payment usually not based on quantities or measurement.
101-37.2	Payment Line	Quantities usually not used as a basis of payment in D/B.
101-38	Plans	Need to redefine and recognize difference between plans developed by State and included in RFP and plans developed by D/B team. May need two definitions, such as "RFP Plans" and "Design Plans".
101-39	Project	Definition should reflect work includes "design and construction" done under a "design-build contract".
101-41	Proposal Form	A D/B Proposal includes much more than just prices on a form. May need to replace with more D/B-type term(s).
101-53	Specifications	Needs to be revised to reflect the different types of specifications that will be included in an RFP, such as Design Specifications, Performance Specifications and Standard Specifications. Also should address "Project Specifications" tol be developed by D/B team.

		Note that the standard D-B-B pay items typically are not applicable to D/B. Different payment methods and the numbering system must be worked out.
102	Bidding Requirements and Conditions	Should be changed to "Proposal Requirements and Conditions" – perhaps placed in an "Instructions to Proposers" that would not be a "Contract Document".
102-01	Location of Regional Offices	In 1st sentence, D/B Proposal will require use of much more than a "proposal form" prepared by the Department.
102-02	Proposals	1st sentence, D/B Proposal will require much more that an official form which is furnished by the Department". Format of D/B Proposals entirely different and includes much more information that a D-B-B bid. Since RFPs will only be offered to short-listed firms (maximum of 5, usually) should reconsider whether DOT will continue to sell plans/proposals – especially considering use of electronic RFPs such as on CD ROM (common practice).
102-03	Proposal Shall Specify Gross Sum	Needs to be revised to eliminate reference to "bid", "bidder", "lowest bid", "unit prices", "unit bid prices", "quantities", etc.
102-04	No Misunderstanding	Needs to change "bidder" to "Proposer" and eliminate reference to quantities. In A. Base Line Data, a. Should refer to RFP rather than "contract plans and proposal". Contents of "Supplemental Information Available to Bidders" (Proposers) should be re-examined and will result in change.

		b. Order of precedence will need to change because level of design completion and appropriateness of specifications at RFP stage different than final PS&E under D-B-B. Other components of the contract documents need to be added to list in appropriate order.
102-05	Subsurface Information	Change "bidders" to "Proposers". In last paragraph, "State design" should be changed to "State preliminary design and engineering".
102-06	Modification or Withdrawal of Proposal	Change "bids" and "bidder" to "Proposals" and "Proposer". Text needs to be revised to reflect that the D/B evaluation and selection process is significantly different than opening bids on D-B-B project.
102-07	Bid Deposit	Change to "Bid" to "Proposal" in title and text. "Bid proposal" should probably be changed to "RFP".
102-17	Sample Format of Agreement	Article 1: Should reflect "design and construct", not just construct. "Plans" at RFP stage will not be sufficient to construct the work. • Recommend "in accordance with Contract Documents" not just "Standard Specifications" – D/B will have other specifications and requirements. Article 2: Probably need to redefine what documents will be included in the contract and add to or subtract from current list. Article 3: Recommend referring to "RFP" rather than "contract documents".

		Article 5: • State probably won't actually alter the plans developed by the D/B team, but may direct D/B team to alter them. • Reference to quantities inappropriate for D/B in majority of cases. Article 7: Payment estimates not usually based on quantities. Article 8: Pretty harsh provision; doesn't foster good relationship with contractor or reflect a partnering attitude – recommend changes so that "punishment fits the crime".
102-20	Sample for of Bid Bond	Change to "Proposal Bond"
102-21	Minority/Women's Business Enterprise Utilization for Non-F.A. Contracts	In A., need to eliminate reference to "apparent low bidder". In B & C, change "bid" and "Bidder" to "Proposal" and "Proposer". In H, should change from "seventh calendar day after the bid opening" to "after award" – to reflect different in evaluation & selection process and time involved.
102-22	Disadvantaged Business Enterprise Utilization for F.A. Contracts	Revise terminology: "Bidder" to "Proposer". In H, should change from "seventh calendar day after the bid opening" to "after award" – to reflect different in evaluation & selection process and time involved.
Section 103	Award and Execution of Contract	
103-01	Award of Contract	Need to remove reference to lowest bidder and change to "best value" if this is basis of selection. Change "bidder" to "Proposer".

103-02	Execution of Contract	In A. Partnering, change reference to "construction contract" and "construction program" to "design-build contract" and "design-build program". Add "design" wherever construction mentioned. Pg 1-49: Reference to "Department's Standard Specifications" not sufficiently inclusive. Should refer to "Contract Documents". Need to remove reference to lowest bidder and change to "best value" if this is basis of selection.
Section 104	Scope of Work	
104-08	Warranties and Guarantees	#2 (pg 1-52) Text will require revision if extended warranties pursued.
Section 105	Control of Work	
105-01	Stopping Work	Should include Contractor proceeding with construction in absence of current, approved Design Plans and Project Specifications covering the Work.
105-03	Accuracy of Plans and Specifications	Should be revised to reflect that the accuracy and details in RFP Plans and Specifications not to same degree of completeness as D-B-B PS&E work. Contractor will be responsible for accuracy and adequacy of Design Plans and Project Specifications covering the work.
105-04	Conformity with Plans and Specifications	Needs to be rewritten to reflect that RFP Plans are only preliminary and that D/B team will be responsible for Design Plans and Project Specifications covering the work.

105-06	Interpretation of Plans	Text should indicate that State responsible for interpretation of RFP Plans but D/B Team designer responsible for interpreting Design Plans.
105-07	Termination Clause	Pg 1-54, 1st paragraph: Depending on decision regarding roles and responsibilities for sampling and testing, D/B team may be responsible for testing and inspection.
105-08	Cooperation by the Contractor	Text should be revised to reflect different organizational structure of D/B team that typically includes Project Manager with Design Manager and Construction Manager (or superintendent) under the PM.
105-09	Work Affecting Railroads	In B, text needs to be revised to reflect "design" including design approval by railroad. Reference to "unit bid prices" should be replaced with "prices". Most D/B not done under unit price payment. Under D, reference to "unit bid prices" should be replaced with "prices". In G, text should include design as well as construction.
105-10	Stakeout	The level of design at RFP stage (done by State) will typically be insufficient to allow State to stake out the project, except for control lines, monuments and bench marks. D/B team should be responsible for stakeout as well as setting grade stakes. Reference to measurement for payment purposes should be deleted except for very few instances where work might be measured for payment, such as hazmat remediation.

105-11	Inspection	Need to determine QA and QC responsibilities, including inspection, sampling & testing, and revise text as necessary.
105-15	Contractor's Responsibility for Work	See comment on 105-11.
105-16	Approval of Shop Drawings, Installation Methods and Construction Details	Since the Contractor's designer will be preparing final Design Plans and Project Specifications, it is more appropriate that such designer review shop drawings, installation methods and construction details – with State participation in the review.
Section 106	Control of Material	Need to determine QA and QC responsibilities, including inspection, sampling & testing, and revise text as necessary.
106-01	Source of Supply and Quality Requirements	Given the fact that Design Plans and Project Specifications are not developed at time of award, D/B team likely not able to provide information within time frame specified in existing text. Depending on decision regarding QA/QC roles and responsibilities, D/B team may doing testing.
106-02	Samples, Tests and Cited Specifications	Need to determine QA and QC responsibilities, including inspection, sampling & testing, and revise text as necessary.
106-07	Basis for Measurement	D/B contracts are normally lump sum with no measurement.
Section 107	Legal Relations and Responsibility to Public	
107-05	Safety and Health Requirements	In B, blasting constraints should be specified in RFP, not left to time constraints imposed by Engineer and other agencies after contract awarded. Such provisions put Engineer in

		position/role of Contractor's PM. In C, requirements/constraints should be specified in RFP.
107-06	Insurance	Need to require professional E&O insurance for D/B designers. Other coverages often required in D/B include railroad protective insurance, contractor's pollution liability insurance and builder's risk insurance. Some projects may warrant "wrap-up" insurance programs, either owner-controlled or contractor-controlled.
107-14	Furnishing Right-of-Way	Text needs to spell out how additional ROW identified during final design will be handled and who will be responsible for providing necessary documents and bearing cost and time impacts.
Section 108	Prosecution and Progress	
108-01	Start and Progress of Work	In A., 1st paragraph: Text needs to reflect that proposed schedule is submitted with Proposal – and what bearing the proposed schedule has. Should also specify when proposed schedule should be updated and submitted, normally within 30-45 days of contract execution. The nature of the actual schedule and means of representing it may vary from project to project depending on size and complexity. In B, text should specify what will trigger need for preparation and submittal of recovery schedule – not just left to opinion of Engineer. Recovery may take more than the 30 days specified. D. text may need to be revised based on pricing and payment method(s) selected for D/B.

108-03	Failure to Complete Work on Time	Any need to revise Table 108-1, Schedule of Liquidated Damages? Amount seem very low.
108-05	Subletting or Assigning the Contract	Work done by Engineering/Design firms should be specifically identified as "Specialty Items".
Section 109	Measurement and Payment	D/B contracts almost exclusively paid on lump sum basis with little or no measurement. Text should be revised after decision regarding specific lump sum payment method(s) to be used.
109-01	Estimates and Payment	In D/B, quantities rarely measured – and only for a few select categories of work, such as hazmat remediation. Unit prices rarely used in contracts.
109-02	Final Additions or Deductions	Reference to final estimate of quantities should be removed. Payment not based on quantity measurement or unit prices, except for special situations.
109-05	Extra Force Account Work, Dispute Compensation and Recordkeeping	In A. Contract Item Charges: Since payment not based on measured quantities, text should be changed to reflect Department's right to order "changes in work" – without reference to quantities. Since the typical D/B contract has no quantities or unit prices, the text pertaining to decreases below 75% of original contract quantity has no meaning and needs to be rewritten to retain the same intent on limitation of payment for reduced/eliminated work. For other than "major items", text needs to be revised because there typically are no quantities or unit prices.

		In B, New Item Charges: Pg 1-86: Under B1: D-B-B bid prices may not be applicable to D/B because costs are often distributed/allocated to different pay items in D/B. The weighted average bid prices for similar work may not be consistent with D/B estimating and pricing. Pg 1-87: Under B2. Force Account Charges, B2a(2): Labor costs (construction) do not include engineering and design costs and engineering and design costs are subject to different mark-ups than construction labor. Need to add a new category called "Non-Construction Labor" – with two subcategories – "Non-Construction Labor employed by construction firms" (such as estimators, schedulers, etc) and "Non-Construction Labor employed by engineering and design firms" – again markups are different for the two subcategories. Under B2a(5), definition of small tools should be expanded to include computer hardware and survey equipment. In B2a(5)(a) (and elsewhere in text): The "Rental Rate Blue Book published by Dataquest, Inc, is no longer published. It has been replaced by "Equipment Rental Rates" published by Equipment Watch (still in San Jose, CA). The "Green Guide for Construction Equipment" is no longer published by Dataquest (went out of business). Pg 1-88: In B2a(6), the 20% profit and overhead cost is

		inappropriate for "Non-Construction Labor employed by engineering and design firms" – see comment for a(2) above. Pg 1-89: Under B2a(7), allowable overhead for engineering & design firms typically includes more than the items listed in the current text. Under B2b, should consider limiting the number of layers to which subcontractor overhead can be applied – typically limited to a single markup. Under C Force Account Report: Under C1: Will likely need a separate form to report Non-Construction Labor – both subcategories. Pg 1-90: Under C2: Summary of Labor needs to include Non-Construction Labor costs (both categories). In D: In D1, need to include salaries overhead and fee costs for Non-Construction Labor (both categories). Pg 1-91: In D1g: Need to limit markups for multiple subcontract layers/levels.
109-06	Progress Payments	Since a "Pay Item" for D/B is paid on a lump sum basis and the "Pay Item" typically includes many items of work, such restriction of not paying till all work done on a "Pay Item" would place heavy cost and interest burden on contractor and result in higher cost to Department. Text needs to be revised within context of the typical D/B Pay Item.

109-08	No Estimate on Contractor's Non-Compliance	See comment pertaining to Article 8.
109-16	Compensable Delays and Delay Provisions	Pg 1-95: Under A(1) Differing site conditions: Since the RFP Plans do not represent final design (usually only preliminary) the meaning of "differing materially from those indicated in the contract" may need clarification. Also need to define accuracy limits of information relating to existing utilities – what constitutes "differing materially" in terms of horizontal and vertical positioning and size and type(material) of utility. Pg 1-97: Under A(3) Significant changes in the character of the work: Changes in size, material type and location of existing utilities need to be addressed under this provision. In (i), (ii) and (iii): Since D/B contracts typically do not include quantities, references to changes in quantities should be eliminated, keeping in mind that the D/B team (through its designer) determines the design quantities, not the Department. In (iv)(b), the typical variation in quantities provisions do not apply for the reasons stated in the preceding comment. In (iv)(c), the definition of "major item" needs to be revised considering that quantities and unit bid prices are not available. In (iv)(d), "Fixed Quantity" items is not applicable. In (iv)(e): The design at the RFP stage will not likely proceeded to a level of completion

		to allow classification of components of composite items – may not even have an Earthwork Summary Sheet for that reason. Text will need to be revised to accommodate this fact and the fact that quantities and unit bid prices will not be available. Under B, Non-Compensable Delays: Pg 1-99: In B3, it may be desirable to incorporate some form of shared risk. In B8, text needs to be revised because there will be few, if any, "contract quantities". In B10, given the likely evaluation and selection process that will likely provide for Discussions and Best and Final Offers, the 45-day time limit is too restrictive.
Section 110	Miscellaneous Requirements	
110-02	Value Engineering	Pg 1-103: Under E. Payment, #2, need to address sharing of savings that result through implementation of an idea or concept included in an unsuccessful proposal. A sharing ratio of 25/75 in this situation may be more appropriate.
110-03	Overtime Dispensation Requirements for Non-Federally Aided Contracts	Text needs to be clarified that the provision does not limit overtime for design and engineering work – or if it does apply, the time benefit of design-build may be partially negated, considering that design and engineering are on a real "fast track", particularly in the early phases of the project.
110-09	Pavement Coding	Need to determine if this responsibility will remain with Department or be transferred to D/B team.

Sections 200-700		General Comments: Revisions in many sections will be needed to reflect the following: The DB Team, not the State, will complete the design. Therefore, the responsibility for ensuring the construction follows the intent of the design shifts to the DB Team. This will likely change the application of such terms "as directed by the Engineer". When the State does the design, the Engineer should step in and direct the adjustments and corrective action because the State is responsible for the successful application of its design. When the DB Team is responsible for the design, the DB Designer needs to have a role in determining the adjustments and corrections to its design with State participation through concurrent reviews. If the "Engineer" continues to direct changes to the design done by the DB Team, the risk for design correctness will shift back to the State. Since the DB contract is typically paid by lump sum, terms such as "directed by the Engineer" or "specified by the Engineer" need to be used judiciously, since there is not a ready means (unit prices) to pay for other work as directed. 1. The role of the State and the DB Team in QA/QC needs to be defined in the context of design-build – with appropriate adjustments in the specifications to reflect this. The direct involvement of Regional and Main Office functional specialists and groups may need to shift from that of direct involvement in terms of approvals and direction to one of "over-the-shoulder" reviews and participating in reviews of DB Team work. If the State continues to direct the Contractor's work, it will assume the risk for the appropriateness of

		corrective action. 2. There are many areas in the Standard Specification where State functional specialists or groups make on-the-ground interpretations and design and construction decisions. If the DB Team is to be responsible for the design and construction, the decision-making authority needs to shift to the DB Team with appropriate State oversight and review. 3. Many places the term "as shown on the plans" or as shown on the Contract Plans" appears. The documents need to be revised to reflect that the "contract plans" in the RFP – perhaps called "RFP Plans" will only be at a preliminary state of completion. The final plans ("Design Plans") are created by the DB Team and will define and control the construction. A similar comparison exists for the "Standard Specifications" (written by the State) and "Project Specifications" written by the DB Team to address the specific requirements of the specific product being installed or built by the DB Team. 4. Shop Drawings and similar documents are typically submitted to the State to review because the State (or its consultant) prepared the design and that designer needs to check to shop drawings to see that they will satisfy the requirements of the plans and specifications. When the DB Team designer prepares the Design Drawings and Project Specifications, the DB Team Designer is in the best position to determine if the shop drawings meet the requirements of the design – with State participation in the review

		process conducted by the DB Team Designer. 5. With few exceptions, the standard Measurement and Payment provisions should be deleted and replaced by a standard DB measurement and payment provision that reflects no measurement and the lump sum nature of payment – but not lump sum payment for individual pay items as currently defined in the Standard Specifications. Typically the lump sum payment applies to categories of work (earthwork, concrete, structural steel, etc) or to grouping of work activities within a given area (pavement structure between points A and B). 6. "Payment Lines" are often referred to in the text. Since there will be little, if any, measurement for payment in design-build, references to "payment lines" should be removed. 7. In DB, there is an emphasis that the DB Team provide a single point of contact for the State. Likewise, design-builders expect that the State will provide a single point of contact – the "Engineer" – and that approvals, requests, reviews would be routed through the "Engineer" and that the DB Team would not be responsible for multiple interfaces with various individuals and groups within the State organization. 8. In several places, the Contractor is required to submit plans, names of suppliers or fabricators, etc. immediately after award of the contract. Since much of the required information can only be provided after the design has progressed and final bids or proposals are received from suppliers and subcontractors,

		the DB Team will not be able to supply the information within the times frames currently specified. 9. Terminology should be more consistent in the context of DB. It would be better to refer to the document issued by the Department as the "RFP" and the documents submitted by the DB Team as the "Proposal". It can be confusing when both the State and the DB Team prepare proposals – especially when the DB Team "Proposal" will be incorporated into the contract, at least in part.
Section 201	Clearing and Grubbing	
201-3.01	Limits of Work Areas	The DB Team will essentially establish the limits of clearing, grubbing, etc. through the final design process with review by the State.
203	Excavation and Embankment (Addendum)	
203-1.09	Unsuitable Material	The DB Designer should be involved in many of the decisions currently shown to be made by the State.
203-1.16	Modifying Cut Slopes and Other Means of Obtaining Borrow	This section will need to be revised because the DB Team will be preparing the final design. Certain limitations on resources located on the project will need to remain (no use of material off the site), but the DB Team needs the flexibility to make changes from the RFP Design as it prepares the final Design Plans-and not have to go through a maze of approvals to make changes to the RFP Design.

203-3.04	Drainage and Grading	Pg II-8 (Addendum), last paragraph: "corrective measures shall be performed as ordered by the Engineer and paid for under the appropriate item" does not fit under DB.
203-3.05	Rock Excavation	The role of the Departmental Engineering geologist needs to be examined in context of DB, especially in the context of determining the causes of scaling problems and defining corrective action. Under A. Presplitting – approval by the Engineer can be a problem if the solution does not work. State may assume the risk if the solution does not work. In C. Explosive Loading Limits – if the Department Engineering Geologist evaluates the seismograph results and the Geologists evaluation must be the basis for adjustments, State inherits the risk of the results. Should be a role for the DB Team with appropriate Department review.
203-3.09	Embankment Foundation	There is a lot of language that indicates that the Department staff will be evaluating the situation and directing and/or approving the solution – all of which shifts risk from the DB Team back to the State.
203-3.12	Compaction	In A. General Requirements: The text may need to be revised upon determination of the appropriate roles of the DB Team and the Department in QA and QC.
Section 300	Bases and Subbases	
Section 302	Bituminous Stabilized Course	
302-1	Description	"Payment Lines" do not apply to DB; typical sections in the RFP Plans are not likely to be

		the final sections that will control the construction.
302-2.01	General	Option A: Since the granular material and asphalt should be specified in a Project Specification written by the DB Team and reviewed by the Department, there should be little or no need to adjust the material specified. • The length of time for Geotechnical Engineering Bureau approval needs to be streamlined, given the fast track nature of DB. Option C: Shouldn't the DB Team Designer be determining the asphalt content?
302-2.02	Tests and Control Methods	"Advertisement for bids" should be changed to "RFP.
Section 304	Subbase Course	
304-2.01	Test and Control Methods	May need to be revised based on decision regarding QA and QC roles of Department and DB team.
304-2.04	Material for temporary Work	Would it be appropriate for the DB team's Designer to approve material for temporary work?
304-3.01	General	Time constraint too restrictive considering the fast track pace of DB.
308	Soil Cement Course	
308-2	Materials	In DB, sampling and testing and determination of cement content typically the role of DB Team Designer, not the owner.

308-3.01	Equipment	5th paragraph: Depending on QA/QC roles, in DB, number of passes usually a QC role and determined by DB Team – subject to verification by owner.
308-3.04	Application of Calcium Chloride and Cement	The amounts of calcium chloride and cement are design decisions typically reserved for DB Team Designer. If State makes design decision, it assumes risk for results.
308-3.05	Mixing and Spreading	Optimum Moisture Content usually a QC role assumed by DB Team.
308-3.06	Compaction	Control of water should be a QC function of the DB Team. If Engineer makes the determination, State assumes risk for results.
308-3.07	Finishing	Application of water should be DB Team decision under its responsibility for QC.
Section 400	Bituminous Pavements	
401-1	Description	The lines, grades, thickness and typical sections will be those shown on the DB Team's "Design Plans" not the Department's "RFP Plans".
401-2.02	Composition of Mixtures	Four (4) prior to scheduled start of work for submittal of mix design – too long in context of design-build and fast track schedule. To meet typical DB schedule requirements, Department representatives should participate in review of design mixes and minimize formal submittals. Department (Regional Director) ordering increases or decreases in bitumen material quantity likely to be a problem since contract and bituminous work will be priced and paid on lump sum basis.

		Temperature should be specified in the Project Specifications prepared by the DB Team, subject to review by Department – but Engineer should not specify temperature.
401-3.12	Compaction	Pg 4-22, All Courses – General Requirements: 3rd paragraph: Specific procedures should be covered by Project Specifications prepared by DB Team, subject to Department review.
Section 405	Cold Mix Bituminous Pavement (Open Graded)	
405-1	Description	See comment for 401-1
Section 402	Quality Control Asphalt Concrete - General	Comments pertain to the Addendum. The specification is written as if the sole relationship is between the Regional Materials Engineer and the Manufacturer, the Contractor's supplier. As written, the Contractor does not appear to be responsible. As written, the Regional Materials Engineer controls the work, not the Engineer or the Contractor.
402-1	Description	Definition of Quality Control may need to be revised to be consistent with overall DB program definition and indicate that QC is a DB Team responsibility.
402-2	Materials	Since quantities are not measured or used as a basis of payment in DB, the QAF provisions will need to be rewritten to provide the adjustments under DB contracts.
402-3.01	Quality Control	A. Control Plan: The Manufacturer's control plan should be a subset to the DB Team Quality Plan. B. Quality Control Organization: Appears to only address manufacturer's organization; should include Contractor's organization too.

402-3.06	Production Quantities	If materials are not measured for DB, the current text will should be revised accordingly.
402-4	Method of Measurement	Since the QAF are determined based on quantities (not usually measured in DB) the method of determining the appropriate QAF should be rewritten to fit lump sum DB contracts.
Section 403	Hot Mix Asphalt Concrete Pavement	Comments pertain to the Addendum.
403-4	Method of Measurement	See comment for 402-4.
Section 500	Rigid Pavements	
501-3.04	Concrete Mixing, Transporting and Discharging	G. Mobile Concrete Mixing Units (Pg 5-16), 4th paragraph: Since DB Team is responsible for design, DB Team Design should provide the mix design information, not the Engineer.
Section 550	Structures	
Section 551	Piles and Pile Driving Equipment	Since the D.C.E.S. and the Department will not be providing the final design, the approval responsibility for many items noted in the specification should be examined. Some approvals may be appropriately assigned to the entity responsible for design (DB Team Designer) with D.C.E.S. oversight while some may be retained by D.C.E.S.
551-1.02	Splices for Steel Bearing Piles	Since the "RFP Plans" provided by the Department will not be completed to the detail envisioned by this specification paragraph, the provision is not applicable. DB Team (its Designer) will be responsible for determining pile length and will be responsible for the accuracy of its design and length estimates.

551-1.03	Furnishing Equipment for Driving Piles	Considering the fast track nature of DB, the 15 working day approval time currently specified should be accelerated.
551-3.01	General	F. Length of Piles: In DB, with DB Team doing the design, will DB Team Designer or D.C.E.S be determining the driving criteria? H. Should examine roles and responsibilities of Engineer and/or D.C.E.S. in context of DB Team doing final design and adjust accordingly. Furnishing Equipment and Personnel – Dynamic Testing Of Piles (2nd paragraph: May need revision based on determination of QA/QC roles of Engineer, D.C.E.S and DB Team. Test locations will not be on "RFP Plans" prepared by Department.
Section 552	Support and Protection Systems (Addendum)	
552-1.04	Excavation Protection System	If "ordered by the Engineer", State assumes risk for the solution ordered.
552-1.05	Alternate Design	Since the DB Team will be developing the design itself, the provision is probably not applicable to DB.
552-3.01	General	2nd sentence regarding payment not applicable to DB.
Section 553	Cofferdams and Waterway Diversion Structures (Addendum)	
553-1.03	Temporary Waterway Diversion Structure	See comment to 552-1.04
553-1.04	Submittals	2. Cofferdams (Type 1): 20-working day review time too long for fast track work as is typical in DB. 3. Cofferdams (Type 2): 10 working day review period should be accelerated.

Section 554	Mechanically Stabilized Earth System (Addendum)	
554-1	Description	Considering the fast track schedule typically associated with DB, the 30 working day advance submittal and 20 working day review period should be accelerated if Department expects to realize time benefits of DB.
554-3.01	Excavation and Disposal	A. Placement Area: Relative to unsuitable soils and excessive moisture content, the phases "in a manner directed by the Engineer, in conjunction with the recommendations of the Regional Geotechnical Engineer" indicate that the Department will provide the solution to the problem, thereby relieving the DB Team of its responsibility and incurring risk for the Department.
Section 555	Structural Concrete	
555-3.03	Forms	A. General: Since DB Team is responsible for design and has detailed design information available, it may be more appropriate for form work plans to be reviewed by the DB Team Designer with Engineer oversight and participation in the review. Approvals should be by DB Team Designer as well as Engineer. B. Removal of Forms: If Engineer controls when and how forms are to be removed, State assumes risk that should remain with DB Team.
554-3.04	Handling and Placing Concrete	General: 2nd paragraph: Entity responsible for testing may change once QA/QC roles are determined for the DB program.
553-3.09	Curing	A. General (7th paragraph): Rate of application of curing compound should be specified in Project

		Specification (prepared by DB Team Designer and reviewed by Department).
555-3.12	Foundation Concrete	Considering that the DB Team Designer will have prepared the final Design Plans, it may be more appropriate for the DB Designer to determine if dimensions should be changed (subject to oversight by Department).
556	Reinforcing Steel for Concrete Structures	
556-2.01	Epoxy-Coated Reinforcement	The specific hardware that the Contractor proposes tom use should be specified in the Project Specifications prepared by the DB Designer. Engineer approval should be given at the design review time, not during construction.
556-2.02	Uncoated Reinforcement	1 and 2: See comment to 556-2.01.
556-3.02	Bar Reinforcement	A. Ordering: Since DB Designer is likely to prepare the initial bar list, it appears that the DB Designer should be involved in approving any changes to the list. C. Splices: See comment for A, above. E. Placement in Structural Slabs: Should examine role of D.C.E.S. in context of DB Designer being responsible for design and if D.C.E.S. directs corrective action without involvement of DB Designer, State likely to assume risk otherwise held by DB Team.
Section 557	Superstructure Slabs and Structural Approach Slabs	
557-3.03	Forms	B. Permanent Corrugated Metal Forms for Superstructure Slabs (Pg 5-70, 5th paragraph): Should consider role of DB Designer in the approval process since the DB Designer is supposed to be responsible for the design.

557-3.06	Handling and Placing Concrete (Addendum)	Pg V-14: Lines 18 & 19: Approval of instruments typically an Independent Assurance role, which, according to FHWA guidelines, is a function outside the control of the Engineer.
557-3.11	Finishing Surfaces to be Overlaid with Portland Cement, or Asphalt, Concrete	Last paragraph: Manner of roughening should be called out in Project Specification prepared by DB Team (and reviewed by Department) – not left to Engineer to specify during construction.
Section 560	Masonry	
560-2.01	Dimension Stone Masonry	Size, quality and color should be specified in RFP and/or Project Specifications (prepared by DB Team and reviewed by Department) – not left to Department decision during construction.
560-3.02	Dimensions of Stone Masonry	D. Expansion Joints: Requirements of Joint Sealer should be covered by Design Plans and/or Project Specifications (both prepared by DB Designer and subject to Department review) rather than as ordered by Engineer during construction. F. Drawings: Since these are really shop drawings, the specification should consider the role of the DB Designer in reviewing shop drawings, since it is responsible for the design. In DB, the Department should have an oversight role.
Section 563	Prestressed Concrete Units (Structural)	
563-2.01	Prestressed Units	Since the units and structures will not be designed at award of contract, the 7-day after award requirement is not realistic.
Section 564	Structural Steel	

564-3	Construction Details	Should revise to remove reference to "pay items", since the items listed are not likely to be "pay items" in a DB contract.
Section 565	Bridge Bearings (Addendum)	
565-3.03	Setting Anchor Bolts	The DB Designer should be involved in any approval of changes to anchor bolts since the DB Designer is the responsible engineer.
565-3.05	Bearing Installation and Alignment	The DB Designer should be involved in approval of changes and bearing adjustments since the DB Designer is the responsible engineer. This should be reflected in several paragraphs in this section.
Section 566	Modular Expansion Joint Systems	
566-2.02	Shop Drawings	Specification should be revised to reflect DB Designer role in reviewing shop drawings, since it is responsible for and more knowledgeable of design details. D.C.E.S. may have an oversight role.
Section 567	Armored Bridge Joint Systems	
567-2.04	Shop Drawings	See comment to 566.2.02
Section 568	Bridge and Culvert Railing	
568-1	Description	DB Team probably not able to provide name and address of Fabricator or the list of specific shops at contract award. The design will not be done and firm proposals/bids for the work probably not available. Information will be available later in the process.
568-3.02	Cement Mortar Pads	D. Form Preparation: Specification should reflect appropriate role of DB Designer in specifying requirements.

Section 569	Permanent Concrete Traffic Barrier for Structures	
569-3.01	Approvals	A. Cast-in-Place Concrete – Modifications to Contract Plans: Paragraph should be modified to reflect that any "modifications" would be made to "Design Plans" prepared by the DB Designer, and that the DB Designer should be involved in the approval decision with Department participation and oversight. B. Precast Concrete: Text should be revised because the precast barrier systems may not be designed at time of award, therefore making it impossible to submit to D.C.E.S. for approval.
569-3.02	General: Cast In Place Concrete	Repair: The DB Designer should be involved in decisions regarding repair since it is responsible for the design.
Section 571	Treatment and Removal of Paint Removal Waste	
571-4 and 571-5	Method of Measurement and Basis of Payment	Since the work may involve the disposal of hazardous wastes or similarly classified materials, unit measurement and payment by unit prices is probably appropriate, even under DB contract.
Section 580	Structural Concrete Removal	
580-3.05	Removal of Concrete from Structural Steel Members	Since DB Designer will be the responsible designer it should be making the decisions regarding repair, with appropriate Department oversight.
Section 584	Specialized Overlays for Structural Slabs	

584-2.03	Manufacture of Microsilica Concrete	B. Handling, Measuring and Batching: The DB Designer should be involved in additions to mix.
Section 585	Structural Lifting Operations	
585-3.01	General	The DB Designer should be involved in approving appropriate lift points since the DB Designer did (or is responsible for) the design of the units.
585-3.02	Working Drawings	(Pg 5-173): (1st full paragraph): The DB Designer should be involved in reviewing working drawings, with Department oversight and participation. (2nd paragraph): The time frames for D.C.E.S. are too long considering the typical accelerated schedule associated with DB contracts, especially if the primary responsibility for review is assigned to the DB Designer with D.C.E.S. oversight.
Section 589	Removal of Existing Steel	
589-3.04	Welded Connections	The DB Designer should be involved in the decision-making and determining procedures for repair, since it is the responsible designer.
Section 597	Timber Bridge Railing and Transitions	
597-3.01	Fabrication	A. Shop Drawings: DB Designer should be involved in review and approval process.

Contract Administration Manual

Compatibility of Contract Administration Manual with Design-Build Procurement

Part/Section	Title	Reason to Change
1A	Contract Administration Manual (CAM)	
Section 90	Record Keeping Procedures	
II	Project Records	Pg 3: References to quantities and measurement for payment should be removed/revised since payment is not normally based on quantities and there is no need for measurement.
IIA	Project Diary – MURK 2	Pg 5 – Duration of Entries (1st paragraph): Entries should begin with "pre-work conference" (not pre-c0nstruction). 2nd sentence should reflect delay in start or design or construction, not just construction.
		Pg 6 – Diary Entry Guidelines: Should be revised to document design work, meetings and reviews, audits and design changes.
		Pg 8, paragraph 9e: Should include design staff.
		Pg 9 – C, Daily Inspector's Report – MURK Forms 1, 3, 4 & 5. Revise or add forms for Design Oversight.
		Pg 11 – C6f: Reference to measurement and quantities for payment should be removed or revised for DB.
		Pg 11 – C6j: Should reflect design and construction.
		Pg 11 – C6k: Should be revised to reflect rejection of design work.
		Pgs 12 -14 – Likely that CEES will require

		some adaptation to work with DB. C7d (Interim Quantity), C7e (Final Quantity) and C7e (Quantity Check) are not applicable to DB since quantities are rarely basis of payment. C7h (computer-Entered/Checked) – reference to interim & final quantities not applicable for majority of DB work.
		Pg 15 – D, Filed Books/Computation Books: Reference to quantity computations should be removed. There may not be a need for computation books under DB, except in rare cases.
		Pg 17 & 18– E, Types of Acceptances, 3 & 4 & 10: Should be removed since there will not likely be contract or final quantities in DB.
		Pg 18 – E, Types of Acceptances, 9 & 12: References to "Quantity (Units) Received" and "Quantity Denoted" should be removed.
		Pg 19 – E, Multiple Material Acceptances, 2: Unit of measure not applicable.
		Pgs 19 & 20, H, Cross Sections: References to cross sections for pay purposes are not applicable for DB. Should remove "H".
III	As-Built Record Plans	Pg 21: 1st paragraph should be revised. The "contract drawings" (RFP Plans) will only be at preliminary level and not be suitable for recording as-built information. 2nd paragraph: Since DB Designer preparesw "Design Drawings", these become basis of as-builts and typically the DB Team prepares as-builts record plans, subject to review and approval by Department.
IIIA	Numbering of Original Contract Plan Sheets	Pg 22: Title should reflect "RFP Plan Sheets".

IIIB	Field Change Sheets	Pg 23: Preparation of field change sheets should be DB Designer responsibility, especially since original design prepared by DB Designer.
IIIC	As-Built Record Plan Guidelines	Pg 23: Preparation of as-builts normally a DB responsibility.
		Pg 24 – C2c: If as-builts prepared by DB Team, should be signed by DB PM, DB Designer as well as Regional Construction Engineer.
		Pg 24A – C3, Index: "PS&E" should be changed to "RFP".
		Pg 24A – C4b – Should reflect signature by member(s) of DB Team.
		Pg 24B – C10: Estimate of Quantity Sheets and Earthwork and Earthwork Summary Sheets not applicable for DB.
V	Availability of Construction Project Records to the Contractor	Pg 25: Title should reflect "Design-Build Project" instead of "Construction Project". Text should include discussion of design records. 2nd paragraph: "Construction phase" should refer to "design and construction phases". "Construction project" should reflect "design-build project". 2, 3 & 4: Not really applicable to DB since payment not based on quantities except in rare situations. Cross sections not really needed except for as-built purposes.
VII	Final Records	

VIIA	Final Estimate Book	Pg 26 - A2c should reflect first days of work for design and construction.
		Pg 27 - A3: Quantity certification not applicable to DB.
	Exhibit 90-A	Probably will need a "Design Diary".
	Exhibit 90 C	Probably will need a "Design Compliance Monitor's Daily Report".
	Exhibit 90 D	Should be revised, since quantities will not be tracked for payment.
Section 95	Preconstruction Conference	Pg 1: Title should be changed to "Pre-Work Conference" since "work" will include design and construction.
		1st paragraph, last sentence: Text should consider that the EIC and many Department staff (design and construction) should have been involved in preparing the RFP and evaluating proposals. Pre-conference review should concentrate on RFP and the successful DB Team's proposal. List of participants should probably include: Regional Design Engineer • Department design staff assigned to project • Contractor's Project Manager, Design Manager, Construction Manager and other "key personnel" • Department's Preliminary Design Engineer
		3rd paragraph: The EIC should have responsibility for conference agenda (not just Construction Supervisor).

		4th paragraph: Topics should include engineering and design topics.
		Pg 2: Topics should include Engineering & Design issues and QA/QC responsibilities and issues.
		Pg 3 - #8: Topics should also cover utility relocation responsibilities, especially if DB team has any responsibility for design and/or construction of utility relocations
		Pg 3 - #12: Should list "Non-construction (engineering) work"
		Pg 5 - #16b: Certified payrolls only applicable to construction labor
		Pg 5 - #16f: Should reflect that shop drawing review normally done by DB Designer in DB.
Section 99	Contract Administration Guidelines	Pg 1: 1st paragraph: Should reflect "design-build contracts", not just "construction contracts. Should also reflect that it is expected that DB Team will follow recognized and accepted engineering and design practices and principles.
A	Basic Principles of Contract Administration	Pg 1: 1st paragraph should reference "design-build contracts".
		Pg 2 - #3: Provision for documenting design deficiencies should be included.
		Pg 2 - #4, 1st paragraph: Should remove the term/title Construction Supervisor and replace with Project Engineer, EIC or similar terms. The Contractor should be responsible for supervising construction (and design). • The last two sentences should be

		revised to reflect that the Contractor has primary responsibility for determining solutions and taking corrective action.
		Pg 5 –C3: Contractor's lead person will be a project manager with responsibilities for design & construction, not a superintendent (which implies construction only). • Should replace the term/title "Construction Supervisor" (Department staff) with something like Design and Construction Compliance Managers that better reflect the role of the Department staff. • Should also include Regional Design Group in the process, not just Regional Construction Group.
Section 102-04	No Misunderstanding	Pg 1, 1st paragraph: The priority of various contract documents will need to be revised for design-build. Pg 1, 2nd paragraph: "Bid" should be replaced by "Contractor's Proposal". • Should be revised to reflect that Contractor likely to have a role in subsurface investigations and have more responsibility than "observable site conditions". • Contract documents will not indicate all conditions that may be encountered since design will be at preliminary level. The actual responsibilities should be determined on risk identification, assessment and allocation early in the DB project process. Pg 1, 3rd paragraph: In DB, the Department will not provide "all" relevant information in

		the RFP documents since design will only be at preliminary level. Paragraph shou8ld be revised to reflect the change in level of information and in the allocation of risk and responsibility.
Section 102-09	Other Contracts	Under "Utilities":
		Pg 1: Many conflicts may be mitigated if responsibility for utility design and/or construction is assigned to DB Team.
		• Pg 2, 1st paragraph, 2nd sentence: Deadlines should be established in RFP development/ preliminary engineering stage.
		• Pg 2, 2nd paragraph: Should check Engineering Instruction 82-4, particularly in light of possible DB Team design and construction of utility relocations.
		Pg 2 – B: Will not be able to determine whether relocations are necessary until final design underway (responsibility of DB Team after award & NTP).
		Pg 3 – D: Should refer to "prework" not "preconstruction" meeting.
		Pg 3 – D & E: Should be rewritten to reflect potential DB Team design and/or construction of utility relocations.
		Pg 3 – F: DB usually assigned responsibility for coordination with utilities.
		Pg 5 – Utility Reimbursement: 1st paragraph should reflect potential for DB Team to do utility relocation design and/or construction.
		Pg 5 – Force Account Work – Municipal Utilities, 5th paragraph: The work described is usually a DB Team responsibility.

Section 102-10	Labor and Employment	
I.	Labor Law Requirements	Pg 1 - A: The requirements applicable to "non-construction labor" (particularly for engineering and design) should be included.
		Pg 5 – B, Prevailing Wage Rates: Should note that "Prevailing Wage Rates" do not apply to engineering and design firms
II.	Weekly Payroll Records and Statement of Compliance	Should clarify applicability (or non-applicability) to engineering and design firms.
		Pg 9 – A, Payroll Data – HC-231-1 FRONT: Probably not applicable to consultants. Should clarify whether applicable to non-construction labor employed by Contractor and construction subcontractors.
IV.	Public Work Project Wallet Cards and Signed Statement	Pg 10: Should clarify if applicable to consultants on DB Team.
VI.	Wage Rate Interviews	Pg 11: Should clarify if applicable to consultants on DB Team.
VIII.	Labor Law Compliance Check List	Pg 15: Should refer to "prework" rather than "preconstruction" meeting. • Should include requirements for non-construction labor employed by contractors and subcontractors and employed by consultants.
		Exhibits 102-10A and 102-10B: Should clarify applicability to consultants.
		Exhibit 102-10C: Should be revised to reflect non-construction categories of employees of consultants.
		Exhibit 102-10D: Clarify applicability to consultants.

Section 102-17	Sample Form of Agreement	Will need to be revised for DB.
Section 103-01	Award of Contract	Pg 1 – 1st paragraph: Should be revised to reflect selection based on "best value" not "lowest responsible bidder".
		Review and analysis system write up will need to be revised to reflect Department's decision regarding the DB procurement process.
		Pg 1 – EE Table: May need to be revised to reflect the fact that the DB EE will be based on less information than for a D-B-B project – and Contractor's price proposal will be based on less information.
		Pg 2: Should be revised to reflect selection based on "best value" (not low bidder). Other revision likely based on Department's selected DB procurement process.
		Pgs 2 & 3 – Case I Reviews: Time frames need to be extended because evaluation & selection process longer for DB. • No need to verify quantities or review unit prices for DB. Should revise entire write-up.
		Pg 3 – Case II Reviews: Time frames are too short for DB. • Revise to reflect that quantities not normally included in DB documents.
		Pg 4 – First Time Bidders: Reference to low bid and low bidder should be revised.
		Pg 5 – Recommend for Award: • 1st paragraph: The Construction Division review should be replaced by an Evaluation & Selection Team that should include design,

		construction and contracting staff. • 2nd paragraph: Delete reference to low bidder.
	Exhibit 103-01A	CONR349C should be revised to reflect DB.
	Exhibit 103-01B	CONR350c should be revised for DB
Section 103-02	Execution of Contract	List of Laws and related contract provisions may need revision since the contract includes design as well as construction.
Section 103-03	Right to Suspend Work and Cancel Contract	Should be revised to delete reference to "unit bid prices" – that are not in most DB pay provisions.
Section 104-02	Alterations and Omissions	Should delete references to unit prices.
Section 104-03	Contingencies, Extra Work, Deductions	
I	Minor Changes in Work	Pg 1: Should be rewritten because current instructions based on revisions to quantities that would not be applicable in DB. Recommend "minor" changes be tied to non-material changes in the Basic Project Configuration (new term).
II	Changes in Work by Order on Contract	Pg 2: Should be written because current instructions based on quantities and unit prices. Also, in #1, "changes in "geometries" should be tied to material changes in Basic Project Configuration.
III	Preparation and Submission of Orders on Contract	Pgs 2 & 3: • 1st paragraph refers to quantities and should be revised. • Time for processing OOC should be expedited if possible due to "fast track" nature of DB work.
		Pgs 3 & 4 – B3: Should be clarified regarding what "designer" means because in DB the "designer" is the DB Designer. Also need to clarify whether "project manager"

		refers to Department's EIC or the Contractor's PM.
Section 104-05	Restricted Use of Highway	Pg 1 – 1st paragraph: Should clearly state that the "designer" is the Department's designer in this case. Pg 2 – B: Should clarify that signing must be in accordance with "Design Plans and Project Specifications" (prepared by DB Team) not "RFP plans" prepared by Department (that are only preliminary)
Section 104-07	Methods and Equipment	DB Team should identify and specify alternate methods and equipment in "Project Specifications" developed by DB Team, subject to review by appropriate Department staff.
Section 105-03	Accuracy of Plans and Specifications	Should be revised because DB Team will be responsible for detail plan and "Project Specifications and will determine actual quantities in final design process. Any errors or omissions in design documents need to be referred to DB Designer for resolution. Department-prepared RFP plans are only preliminary in nature.
Section 105-04	Conformity with Plans and Specifications	Should be revised to reflect that the plans and specifications referenced herein are the Design Plans and Project Specifications developed by the DB Team and accepted by the Department.
Section 105-08	Cooperation by the Contractor	Should be revised to reflect that more than construction-type supervisors are required since it is a design-build contract. Typically, the lead in a DB Team is referred to as the Project Manager.
Section 105-09	Work Affecting Railroads	Text should be revised to reflect language that provides incentive to DB Team to minimize railroad force account work. Form may have to be revised, too.

Section 105-14	Dispute Resolution and Disputed Work Provisions	Pg 1 – A, Notice, 2nd paragraph: Text should be revised to remove "quantity variation disputes" since quantities are typically not provided or measured in DB contracts.
		Pg 3 – Text should be revised to remove references to "quantity underrun", "quantity variation clauses", "item quantities", etc.
		Pg 4 – B, Responses: Recommend a faster response time than 60 days as noted. Department should be more responsive in "fast track" DB environment.
Section 105-16	Approval of Shop Drawings, Installation Methods and Construction Details	Pg 1 – 4th paragraph: • 1st sentence is not correct for DB. • It will not be possible to submit shop drawings prior to award because design at this stage will only be preliminary. • DB Designer should have primary role in reviewing shop drawings, installation methods and construction details and similar documents since DB Designer is designer of record. • Department should participate in review, but not be responsible for such reviews.
Section 106-02	Samples, Tests and Cited Specifications	The section may need revision based on Department's decision regarding DB Team and Department roles for QA/QC in DB contracts.
Section 107-14	Furnishing Right-of-Way	Pg 3 – B, Additional Maps Required During Construction: Need for additional maps may become evident during design and/or construction. • Typically DB Team responsible for providing additional documents

		needed for acquisition of additional ROW.
Section 108-01	Start and Progress of Work	Pg 1 - #3: Should reflect Department's need for information for design reviews, QA/QC audits, etc.
Section 109-03	Payments on Contract	Pg 1 – Monthly Estimates, 1st paragraph: Should be revised/clarified to indicate that quantities will not be measured. Progress normally determined by achievement of previously established milestones or as % complete.
I.	Processing a Progress Estimate	Pg 2 – • 2nd paragraph: Should verify/determine how CEES will work with DB. • 3rd paragraph: References to measurement or determination of quantities should be removed. • CONR 22 Report may have to be revised for DB.
II.	Preparation of Progress Estimate Documentation	Pg 6 –
		B, Fuel & Asphalt Report : Some revision to CEES procedure may be required because standard process based on quantities.
		C & D, Statement of Quantities Used, CONR 22 Report: Quantities not measured in DB.
		Pgs 7 – Items 4-10 relate to quantities and will not be applicable in DB contract.

III.	Prompt Payment – MIR Date Requirements	Pg 13: • 1st paragraph: In DB, DB Team typically prepares progress estimate and submits to Department as an invoice to be approved by Department. • 3rd paragraph: May be different with DB – typically requires more than affidavit and submittal of certified payrolls.
		Pg 14 - #1: In DB, Contractor normally prepares the invoice.
		Pg 15 - #5: Would recommend another procedure for encouraging compliance rather than the "all or none" approach, especially since payment not being made on items but on large segments of the work.
IV.	Credits or Rebates by OOC	Pg 16, 2nd paragraph: Should be revised to remove reference to quantities.
	Exhibit 109-03A	Form CONR 22 will require revision for DB because current CONR 22 based on measured quantities and unit prices.
	Exhibit 109-03B	Form CONR 30b should be revised to delete reference to "actual measurements" and "measurements".
	Exhibit 109-03C	HC 258 Form should be revised by removing reference to "authorized contract quantities".
Section 109-04	Partial Payments	Pg 3 – a), # 2 and #3 and b): Should be revised to delete references to "contract quantity item", "quantity", "Qty. Reported" and "Total Amount Completed".
		Pg 5 – #2: Should be revised to remove reference to "quantity".

	Exhibit 109-04C	Form CONR 314(a) should be revised to delete reference to quantity and unit price.
Section 109-05	Extra, Force Account Work, Dispute Compensation and Recordkeeping	Pg 1 – 1st paragraph, #1: This item will not be applicable for DB (refers to quantities).
		Pg 1 – 2nd paragraph, # 1 & #2: Items will not be applicable to DB (refer to quantities).
I.	Procedure for Orders-on-Contract and Field Change Sheets	Pg 2 – When are field change sheets required? Field change sheets should be prepared by DB Designer, not Department as implied in current text.
		Pg 3 – A, Objectives: Need to highlight that the "original preparing agents" in DB will be the DB Designer. • Coordination of the review should be lead by DB Designer with appropriate participation by Department.
		Pg 4 – B, Process for Orders-on-Contract, #4: Text should be revised within context that "project designer" will be DB Designer. EIC should coordinate with DB Team with Department participation in review.
		Pg 5 – C, Process for Field Change Sheets, #2: Given the fast track nature of DB and the fact that the DB Designer will be preparing field changes and is the engineer of record, the review should be focused at the project level with appropriate participation by Department and other agency representatives.
		Pg 6 – Last paragraph of I – Text should be revised to reflect that DB Designer will be the responsible engineer and engineer of record. The DB Designer will be the source of

		solutions, not the Department – although Department will participate in reviews.
II.	Preparation of Field Design Sheets	Pg 6 - Text should be revised to reflect that DB Designer will be preparing field design sheets. Reference to the "original contract plan sheet" should be changed to "original Design Plan sheet" (prepared by DB Designer).
		Pg 7 - #5: Field change sheets should also be approved by the DB Designer since that entity is the designer of record.
III.	Preparation of Orders-on-Contract	Pg 7 – A: OOC Form CONR 7-1 should be revised for use in DB.
		Pg 9: #7: Should provide for "Project Specifications" developed by DB Designer. Standard Specifications may not be applicable or appropriate. • #8: Text should be revised because quantities not normally provided for individual items, although an OOC may be based on a negotiated unit price and estimated quantity. • #9: Preferred method of pricing for DB is Lump Sum to avoid necessity for measurement. Text should reflect this.
		Pg 10: • #10: Measurement usually avoided in DB. Payment normally based on Lump Sum. • #12: Text should be revised to delete reference to "Prior Approved Quantity". #13: Text should be revised, consistent with revised CONR 7-1, to remove reference to quantity and unit price. • B, Explanations: Increased

		quantities is not normally an issue in DB OOC's since basis of payment not normally quantity-based.
		Pg 11 – B, # 1 through #5: Text should reflect involvement of DB Team, especially DB Designer, in the process.
		Pg 12 – D, Supporting Information: Text should be revised because neither unit bid prices nor quantities are normally used in DB pricing.
		Pgs 13 & 14 – E, Supporting Information – Agreed Prices, #1, 2nd paragraph: Text should be revised because comparison to weighed average bid prices usually not appropriate price basis for DB because DB projects typically distribute prices differently (such as management and other non-construction costs). Also, weighted average bid prices do not include engineering & design costs. Pgs 14-19 - Examples of New Price Analysis: Examples not solely based on unit prices and quantities and including DB cost factors should be provided.
		Pg 21 – F, Supporting Information – Force Accounts: Labor costs should be broken out into construction and non-construction labor (for design and engineering) and non-construction labor subdivided into employees of construction firms and employees of consultants. There are significantly different mark ups applicable among these categories.

		Pg 22 - #2, B.2a.(5)(a), Contractor Owned Equipment: The "Rental Rate Blue Book" is no longer published. New source is "Equipment Rental Rates" published by Equipment Watch of San Jose, CA.
		Pg 25 - #1, Labor: Need to include non-construction labor. See comments for Pg 21, above.
		Pg 26 - #2, Force Account Summary of Labor, MURK 12: Need to include non-construction labor. See comments for Pg 21, above.
IV.	OOC's for Utility Connections	Pgs 30 & 31 – 3rd paragraph: Text should be revised to reflect that not all approvals and releases may be obtained before contract advertised because design will only be at preliminary stage when RFP issued. Accomplishing the work may not require OOC's. The procedures for DB may be quite different than for DBB.
V.	Dispute Compensation	Pg 32 – A, Time Related Dispute Compensation, 2nd "bullet": Should include equipment standby costs.
	Exhibit 109-05A	Order-on-Contract Process: Some revisions may be necessary, such as: "Designer" is the DB Designer. Will another Department representative take the place of "Designer" in the flow chart? Or be in addition to the "designer"? • Under Identification of Need, "Errors" is not a common reason for OOC's in DB. Necessary and material changes in Basic Project Configuration are.

		• The design and construction reviews should be joint reviews (for DB), not separate and distinct steps
	Exhibit 109-05C	CONR 7-2L should be revised since the current version is based on unit prices, change in quantities and standard specification work items that may not be directly applicable to DB pricing scheme.
	Exhibit 109-05D	CONR 7-1h should be revised. See comment for CONR 7-2L above.
	Exhibit 109-05E	Guidelines for Significant Change in Quantities of Work Items: Entire text should be revised keeping in mind: Most work is on Lump Sum basis • DB Team completes design and essentially determines the quantity of work to be done • Contract unit bid prices are rarely included in DB contracts • Notice of change in quantity of work not applicable for DB since DB Team determines the quantities through its design. Any errors in final versus design quantities are the sole responsibility of the DB Team.
	Exhibit 109-05F	Cost Analysis Instruction: The instructions should be revised because the entire instruction is based on a unit priced and quantity type of pricing that is not applicable to DB.
	Exhibit 109-05G	Cost Analysis Worksheet: Since the worksheet is based on a pricing scheme involving quantities and unit bid prices, it should be revised for DB where lump sum pricing. The use of weighted average bid price comparisons is also questionable for DB.

	Exhibit 109-05J	MURK 12c, Force Account Summary of Labor: Form should include provisions for non-construction labor, for both employees of construction firms and for employees of consultants.
	Exhibit 109-05L	MURK 13d, Force Account Summation: Form should be revised to accommodate two categories of non-construction labor. Travel costs may be involved for consultants, too.
Section 109-06	Progress Payments	Pg 1 – B, Unit Bid Items: Text should be revised to indicate that unit bid items are rarely used and the payment provisions are normally included in a single Section 100 specification rather than individual work specifications.
		Pg 2 – C, Lump Sum Items: The list of Lump Sum items is much more extensive than currently indicated and the title/description of lump sum work will likely change from contract to contract.
Section 109-08	No Estimate on Contractor's Non-Compliance	Recommend providing new guidance for LS DB contract. Withholding all payment for what may be a single non-compliance is so severe that the Department staff may be very hesitant to impose the penalty. There are means within DB contacts whereby withholding payment can be in such a manner that the "punishment fits the crime" and is more equitable.
Section 109-09	Final Acceptance of Work	Pg 1 – List at bottom of page should include receipt and approval of as-built drawings. These documents are typically prepared by DB Team in DB. A subsequent paragraph detailing the requirements may be advisable.
Section 109-10	Uncompleted Work Agreement	Pg 2 – B, Estimating Uncompleted Work Quantities:

		• Text should be revised because quantities are not the normal basis of payment in DB. • #1: Text should be revised to reflect that basis of cost and payment not likely to be quantities and unit prices for DB.
Section 109-11	Final Agreements	
I.	Pre-Final Agreement Checklist	Pg 1 – A, Orders-on-Contract, #1: Quantities typically will not be reported for DB contracts.
II.	Processing the Final Agreement	Pgs 2 & 3 – A, Prepare Final Quantities Report: Except in unusual circumstances, there will be no "final contract quantities" to report.
		Pg 3 – B, Contractor Review of Final Contract Quantities: Not applicable for DB.
		Pg 5 – C, Submit Final Estimate Data Entry Form: Text should be revised because it is not likely there will be a final contract quantity review process for DB contracts.
		Pgs 7 & 8 – F, Explanation of Increases and Decreases Since there typically will be no (or few) "contract quantities", the explanations should be in terms of scope of work changes rather than increase and decreases in "contract quantities" . The text on Pg 8 should be revised to remove references to adjusted quantities. Items 1 through 3 are not applicable to DB.
		Pg 9 – J, Workup of Final Accounting, #1 & #2: Items are not applicable to DB because there will be very few, if any, quantities, unit prices or pay items (hazmat remediation is the only work typically done on quantity and unit price basis).

IV.	Final Agreement and Estimate Package	Pg 11 – The Final Estimate (CONR 22 Statement of Quantities Used) and Explanation of Increases and Decreases probably not applicable or would need to be revised for DB application.
V.	Prompt Payment – MIR Date Requirements	Pg 13 - #3a: Not applicable for DB.
		Pg 14 – A2: Not applicable for DB
	Exhibit 109-11A	Final Agreement: Should be revised to remove references to quantities. Need to define scope not quantities.
Section 109-16	Changed Condition and Delay Provisions	Pgs 1 & 2: Text will likely require revision based on individual project risk assessment and allocation. • Text should be revised to remove references to unit prices, since such will not be provided for the vast majority of work on a DB contract.
III.	Significant Change in the Character of the Work	Pgs 4, 5 & 6: Text should be revised to remove references to quantities, unit prices, contract bid prices, etc. • Significant change involving quantity changes is typically not applicable in DB, since DB Team completes the design and determines quantities and is responsible for any quantity changes except for changes ordered by the Department. Even in the case of Department-ordered changes, the basis of adjustment is not unit prices and quantities unless there is a unit price schedule included in the contract. In any case, quantity changes are not typically included within the definition

		of "significant change" in DB contracts.
		Pgs 6 & 7 – Composite Item Adjustments: Excavation is typically not classified and quantities by classification are not determined. • The earthwork summary sheets would not be applicable in DB. • Field measurements (top of Pg 7) would not be required for DB because payment not based on measurement or classification of excavation.
		Pg 7 – Lump Sum Adjustments: Text should be revised to reflect that Lump Sum adjustments would be applicable to far more than the few examples listed in the current text. Most, if not all, payment will be on lump sum basis.
Section 110-02	Value Engineering	
II.	Payment	Pg 3 – 1st paragraph: Usually the percentage to the DB Team is reduced (typically to 25%) if the proposed VECP originated from the proposal of an unsuccessful proposer.
MURK Part 1B	Construction Inspection Manual	The text of many sections may have to be revised based on the Department's decision regarding allocation of QA/QC responsibilities under DB contracts. Typically the DB Team is assigned a greater role, with the Department concentrating on monitoring, auditing and verifying QA/QC, including sampling and testing.
Section 203-00	Excavation and Embankment	
203-3.01	General	Pg 1 – 1st paragraph: Text should be revised to reflect that the primary source of

		assistance regarding soils problems should be the DB Designer team. DB Team is contractually responsible for determining solutions. If Department interjects its own solutions, Department assumes risk of adequacy of solution and time and cost impacts of same.
203-3.08	Disposal of Surplus Excavated Material	Pg 3 – 2nd paragraph: The DB Team ,specifically the DB Designer, should have primary responsibility for verifying that fill will not infringe on a wetland or flood plain.
203-4	Method of Measurement	Pg 8 – Since DB typically involves no measurement of quantities, the payment line concept is not applicable to DB. Involvement of Regional Geotechnical Engineer not required, except to review proposed limits of excavation included in DB Team's design.
203-4.01	General	Pgs 8 & 9 – Text should be revised to reflect that interim quantities are almost never estimated or measured (nor are final quantities). Recommend the entire section be rewritten to reflect the DB approach to interim payments.
		Pg 10 – Last sentence: The DB Designer team should determine the need and depth of undercut. If Department makes these decisions, Department assumes risk of the adequacy of the decision and time and cost impacts and makes a significant shift in risk allocation from that normally intended in DB contracts.
203-05	Basis of Payment	Pg 11 – The text should be changed for DB. Typically payment is covered in a single Section 100 provision rather than under each work specification.

Section 207-00	Geotextile	Pg 1 – Evidence of Acceptability, #4: The DB Designer should have a role in determining acceptability since it is the designer of record.
Section 302-00	Bituminous Stabilized Course	Text may need to be revised depending on Department's decision regarding QA/QC roles.
Section 304-00	Subbase Course	Text may need to be revised depending on Department's decision regarding QA/QC roles.
		Pg 1 – Project Procedure, 4th paragraph: Highly unlikely that there would be a pay item for placing water in a DB contract.
Section 308-00	Soil Cement Course	Text may need to be revised depending on Department's decision regarding QA/QC roles.
Section 501-00	Portland Cement Concrete	Pg 3 – C, BR 316 – Daily Concrete Batch Plant Report: The necessity for tracking quantity delivered vs quantity received is not evident for DB since payment not based on quantities.
		Pg 5 – F, Concrete Mix Computations: For DB, the DB Designer should be responsible for generating the concrete mix design, subject to review by Department.
		Pgs 6 through 8 – Field Documentation for Structural Concrete Inspection: May want to consider having DB Team record the required information, subject to Department verification and audit. • #16 through #19: Since payment will not be based on quantities, these items may be inapplicable for DB.

Section 502-00	Portland Cement Concrete Pavement	Pgs 1 & 2 – A, Concrete Pavement Daily Field Inspection Report • May want to consider having DB Team record the required information, subject to Department verification and audit. • #7 through #10: Since payment will not be based on quantities, these items may be inapplicable for DB.
Section 551-00	Pile and Pile Driving Equipment	Pg 1 – • 1st paragraph: Text should clarify that the Plans and Specifications mean the Design Plans and Project Specifications developed by the DB Designer. • Text should explain the role of the DB Designer in approving pile and driving equipment data. • Under "Pile Points" and "Pile Splices", Contract Plans should be changed to Design Plans (developed by DB Team)
		Pg 2 – Pile Driving Records: Should examine whether records will be made by DB QC staff (with Department oversight and audit) or by Department staff.
	Exhibit 551-A	Pile and Driving Equipment Data: Distribution should include DB Designer.
Section 554-00	Mechanically Stabilized Earth System	Text may need to be revised depending on Department's decision regarding QA/QC roles.
Section 555-00	Structural Concrete	

III.	Forming Operations	Pg 5 – D, Construction Joints Shown on Plans: In DB, omissions should be brought to the attention of the DB Team, specifically the DB Designer, for advice, since DB Designer is designer of record.
IV.	Concrete Operations	Pg 5 – A, Prior to Placing Concrete, #1: Since the DB Designer is the designer of record, concurrence of DB Designer should be obtained prior deviating from sequence shown on Design Plans. Should clarify what role the DCES will have in this case for DB.
		Pg 6 - #7, Admixtures: The role of the DB Designer in approving admixtures should be specified and the role of the Regional Materials Engineer in DB clarified.
V.	Cold Weather Concreting Operations	Pg 14 – D, Structural Concrete Placements, #2a: Would it be appropriate for DB QC staff to maintain the temperature record, subject to Department monitoring and audit?
	Exhibit 555-B	1st paragraph: The DB Designer should have a role in reviewing and approving placement for superstructure slabs.
Section 557-00	Superstructure Slabs and Structural Approach Slabs	
I.	General	Pg 1 – Text should be revised to clarify difference between “supervision” (DB Team role), inspection and oversight. Text may also need to be revised depending on Department’s decision regarding QA/QC roles.
IV.	Forming Operations	Pg 4 - #2, Welding: Contract Plans should be changed to Design Plans. • The DB Designer should be the primary contact to resolve issues

		regarding the definition of the "tension zone" since the DB Designer is the designer of record. Should also clarify role of DCES under DB for these situations.
V.	Concreting Operations	Pgs 6 & 7 - #2, Placing Sequence: DB Designer should be involved in approving any deviation from sequence shown on Design Plans – and should be the point of contact for guidance if no placing sequence is shown for continuous deck of two or more spans. Should also clarify role of DCES under DB for such cases.
		Pg 7 - #4, Admixtures: In (a) and (b), the DB Designer should be consulted regarding admixture doses and determination of water-cement ratio. Should clarify role of Regional Materials Engineer in such cases under DB.
Section 562-00	Precast Concrete	Pg 1 – Erection Plan: • The erection procedure should be covered in the Project Specifications developed by the DB Team and should have been reviewed by Department prior to start of construction for this work. • Given the "fast track" nature of DB, the 30 day advance notice may be too long.
		Pg 3 – Miscellaneous Repairs of Precast Concrete: The DB Designer should be involved in the approval of repairs.
Section 563-00	Prestressed Concrete Units	Pg 1 – Erection: • The erection procedure should be covered in the Project Specifications developed by the DB Team and should have been reviewed by Department prior to start of construction for this work. • Given the "fast track" nature of DB,

		the 30 day advance notice may be too long.
		Pg 2 – C: • Should change contract drawings to Design Drawings. • Under Differential Camber, the DB Designer should have a primary role in providing guidance. Role of Concrete Engineering Unit should be clarified under DB.
		Pg 4 – Loading: The DB Designer should be involved in this decision.
		Pg 5 – • Stage Construction Camber Differences (Adjacent Beam Structures): The DB Designer should be contacted for direction regarding minimum slab thickness. • Rejection of Units, General: DB Designer should be involved in the approval process.
Section 564-00	Structural Steel – Structural Welding - Field	Pg 9 – Transportation Drawing: DB Designer should be involved in the approval process.
Section 565-00	Bridge Bearings	Pg 4 – • Shop Drawings: DB Designer should have primary involvement of review and approval of shop drawings since DB Designer is designer of record. • Contact: Contract Plans should be changed to Design Plans. In case of problems with plans, DB Designer should be the primary source of assistance. Should clarify role of Regional Office or Structures Division in such cases.

Section 566-00 and 567-00	Bridge Deck Joint Systems	Pgs 2 & 3 – Concrete Deck, #1, and Asphalt Overlay, #2: Contract Plans should be changed to Design Plans.
Section 583-00	Shotcrete	Text may need to be revised depending on Department's decision regarding QA/QC roles.
Section 612-00	Sodding and Placing Erosion Control Materials	Text may need to be revised depending on Department's decision regarding QA/QC roles.
		Pg 2 – Furnishing and Placing Erosion Control Materials: Should change "contract documents" to Design Plans, since "lines and grades" will not be in RFP Plans.
Section 620-00	Bank and Channel Protection	Pg 1 – General Requirements – Stone Filling and Rip-Rap Items: Role of Department Engineering Geologist vs DB Designer should be clarified with respect to evaluating materials and testing same.
		Pgs 2 & 3 – Project Procedure – -Stone Filling & Rip-Rap Items: • In DB, no need for estimated quantities in stockpile. • DB Designer team should be primarily involved in geologic evaluation of source -Bedding Material: Text may need to be revised depending on Department's decision regarding QA/QC roles. -Gabions: Estimate of quantity in stockpile shouldn't be necessary for DB.

Section 637-00	Microcomputer System	Pg 1 – • 2nd paragraph: Computers will also be needed for design reviews and over-the-shoulder reviews of design in progress. • Should also require DB Team to provide necessary network hardware & software • 3rd paragraph: "PS&E" should be changed to "RFP".
Section 645-00	Guide Signs, Traffic Signs and Special Devices	
645-3.08	Erection	Pg 2 – Plastic Soils: The DB Designer should be contacted regarding foundation design, otherwise Department will assume risk for design.
Section 698-00	Fuel and Asphalt Price Adjustments	Pgs 1 & 2 – Payment Documentation: • Text should be revised because current adjustment methods requires use of quantities that are not available in DB. Non-quantity based adjustments methods are available. • The current CEES probably will not calculate the price adjustments based on an appropriate DB method that is not quantity dependent.
Section 700	Materials Details	Text may need to be revised depending on Department's decision regarding QA/QC roles.

Construction Supervision Manual

Compatibility of Construction Supervision Manual with Design-Build Procurement

Part/Section	Title	Reason to Change
Section 102-04	No Misunderstanding	Pg 102-1: References to extracts from Design Procedures Manual should be replaced by references to DB Procedures Manual (to be developed).
A.	Information Available to Bidders	Pgs 102-1 & 2:
		• Form CONR 9g (current version) should be revised for DB • The number of sets for different items may change depending on medium used to publish/issue RFPs. • #1 -Utilities Estimate Sheets should not be included in DB contract documents. • #3 – Earthwork Cross Section Sheets should not be included in DB contract documents, at least for quantity purposes. May be used to indicate general scope of work. May be better included as Reference Documents in the RFP. • #4 through #6– Earthwork Sheets, Earthwork Summary Sheets and Drainage Estimate Sheets should not be provided for DB. Quantities not normally included in DB contract documents. • #7 – Sign Face Layouts would not normally be provided since design should not have progressed to this level for the "RFP Design". DB Team should develop these as part of final design.

		• #8 – Subsurface Information: For DB, should typically only provide raw data. Limited analysis and interpretation should be provided; otherwise State retains liability for interpretation. Analysis and interpretation should be DB Team responsibility. • #9 – Other Subsurface Information: Location of such information likely to vary from project to project. Some may be in contract documents, others in Reference Documents. • NOTE: May wish to reconsider "selling" the information, particularly if provided in electronic format on CD ROMs. Cost of "selling" likely to exceed cost of duplicating and giving the CDs to proposers.
B.	Materials to Be Supplied to the Successful Bidder After Award	Pg 102-2: • #1 – Contract Plans: Contract Plans representing "RFP Design" will likely be far from complete. Plans distributed with RFP sets should be adequate. Electronic files containing preliminary design data much more useful and typically are distributed with RFP. No need for hardcopy or sepias at this stage of project. • #2 – "Proposal" sets may be reduced, especially if electronic copies are available. Typically two (2) hardcopy sets are adequate. • #3 through #7 – Not applicable for DB contract.
C.	Information to Be Shown on Cross Sections and Subsurface Information Sheets	Pg 102-3: • # 1 & #2: The notes should be revised because quantity information not typically provided for DB contracts. • The "Sample Form of Proposal" will need to be revised to reflect DB.

D.	Making proposals, Prints of Cross Sections, Prints and Sepias of Plans and Other Data Available to Verified Low Bidder Before Official Award of Contract	Pg 102-3: • Reference to "low bidder" should be replaced by "Proposer offering best value" or similar language. • All the information required to start work on the contract normally included in the RFP and used to prepare proposal. • The receipt language should be revised to reflect the particular representations made in the RFP.
CONR 9g	Supplemental Information Available to Bidders	Should be revised for DB; many items listed should not be provided.
Section 102-8	Contract Clauses Required in Public Works	References to "preconstruction conference" should be changed to "pre-work conference" since "work" includes design and construction. Many references to "construction" should be changed to the more general term "work".
		Pg 102-7: !02-08C (B): Should clarify whether provision is applicable to non-construction labor, particularly for engineering & design work.
Section 102-09	Other Contracts	Pg 102-16a, 5th paragraph: The responsibilities should be reconsidered and revised as appropriate for DB. DB Team should have significant roles relating to utilities.
		Pg 102-16b: • B: The determination of the necessity for utility relocation will likely have to await further development of design by the DB Team; may not be able to determine at start of contract. • C: Should be revised within context of DB contract, where relocation requirements may not be know to the

		full extent. DB Team should have some responsibility to deal with such issues. • Requirements and responsibilities may change of the DB Team has responsibilities for relocation design and/or construction.
		Pg 102-16c: Text may need to be revised since much of the information noted in #1 though #8 may not be known at start of contract because design will only be at preliminary stage at best.
EI 82-4	Time Schedules for Relocating Utility Facilities Affected by State Public Construction Contracts	Pg 1: • 2nd paragraph: Should be revised to reflect that it may not be possible to "completely identify" the utility facilities to be removed, relocated or replaced because the design at project start will only be at a preliminary level. • # 1 & #2: Text shoulod be revised; design will not be done. DB Team should be involved in determining schedule for relocation to support it schedule. Also, DB Team may have relocation design and/or construction responsibilities.
		Pg 2: • Responsibilities of regional Design Engineer to some extent may shift to DB Team since the design will not be done at project start and overall project schedule will be determined by DB Team. • Reference to "PS&E" should be changed to "RFP".
Section 102-10	Labor and Employment	Pg 102-17: Text should clarify that construction labor payroll records requirements currently addressed in text do

		not apply to non-construction labor, especially those employed by consultants (engineering & design).
Section 102-17	Sample Form of Agreement	Pgs 102-27 & 28: The articles and provisions noted will likely require revisions to accommodate DB contracts.
Section 103-01	Award of Contract	Pg 103-1: • 1st paragraph: Reference to "lowest responsive bidder" should be replaced with "Proposer offering best value" or similar language. • 3rd paragraph: The summary of the review and evaluation process will be significantly different for DB. Text should be modified to be consistent with evaluation & selection procedures in DB Procedures Manual (to be developed). • 4th paragraph: Will "Bidlet System" work for DB evaluation & selection process? Probably not. Two day time period will not work for DB evaluation & selection process. • 5th paragraph: "Low Bidder" should be replaced with "Selected Proposer".
		Pg 103-2 & 3: • Text should be revised to remove references to "low bidder". • The analysis of high and low bid items would not apply to DB. • Reference to unit prices should be removed. • The "Low Bidder Report" and "High and Low Bid Items Reports" would not be applicable for most DB work. The review process and associated reports should be revised to be consistent with DB and the DB evaluation & selection process outlined in the DB

		Procedures Manual (to be developed).
Section 103-03	Right to Suspend Work and Cancel Contract	Pg 103-5: Reference to "commence construction within ten (10 days" should be changed to "commence work ---". Design will not be done at start of contract.
Section 104-03	Contingencies, Extra Work, Deductions	Pg 104-3 & 4: • A: Text should be revised to reflect that scope in DB is not defined in terms of quantities, nor are quantities measured for payment. • A(2): "Unit bid prices" are rarely used in DB contracts. Text should be revised. • There will be some different occasions in a DB contract that would be classified as a "major change" that should be added to the text. • B: Text should be revised to remove references to "quantities".
		Pg 10404a: • Paragraph after C(7): The time impact of all the reviews and evaluation on a typical fast track DB project should be considered and the process streamlined, if possible.
		Pg 104-4b: • 1st full paragraph: Use of CONR 22c, Statement of Quantities Used, probably not applicable to DB since quantities usually not measured or used as basis of payment. • F, 2nd paragraph: Text should be revised to reflect that approvals and releases may not be obtained during the RFP Design phase and may not be obtained till after contract awarded and DB Team design is underway.

Section 104-05	Restricted Use of Highway	Pg 104-7: C, Necessary Project Signing – the "plans and specifications" referenced will be the Design Plans and Project Specifications developed by the DB Team.
Section 104-07	Methods and Equipment	Pg 104-13: Alternate methods and equipment typically should be included in the DB Team's Proposal – review and approval would take place during Proposal evaluation & Selection. Alternate methods and equipment proposed during course of contract should surface during design review process and "approval" occur at that time, not a separate process.
105-03	Accuracy of Plans and Specifications	Pg 105-3: The DB Team will be responsible for creating detailed plans and specifications and determining quantities for its own purposes. Any changes in these are the DB Team responsibility. Text should be revised to reflect this.
Section 107-06	Insurance	DB Contracts should also required Professional Liability (Errors and Omissions Insurance). Other insurance such as Contractor's Pollution Liability and Builder's Risk Insurance are often included.
Section 108-01	Start and Progress of Work	Generally, references to "construction" should be changed to "work". "Preconstruction meeting" should be changed to "pre-work meeting" to reflect that the project includes design and construction.
	CONR 349a & CONR 350a	• Should be revised to reflect that the basis of selection is not "low bid". • CONR 350a should have "construction" changed to "work".
Section 108-05	Subletting or Assigning the Contract	Pg 108-12, 1st paragraph: Should clarify whether restriction on second tier "subcontractors" will apply to consultants. Typically in DB contracts, the lead designer is executes a "subcontract" with the design-builder. Will the lead designer be able to have a consultant-subconsultant relationship

		(second tier) or will all consultants regardless of size and work being done have to have a separate subcontract with the design-builder?
		Pg 108-13: • A(2): Referenced to "lowest responsible bidder" should be changed. • Under DB, it may be more advisable and appropriate to evaluate DBE and WBE participation as part of the evaluation & selection process rather than waiting till after selection. It should also be recognized that the DB Team may not be able to identify all DBE/WBE participants at award. Many DBE/WBE firms may not submit bids until they are able to see the final design for the work they are solicited to do. • B: Value of work subcontracted cannot be based on "contract unit bid prices" since DB contracts rarely have "unit bid prices". May need to determine another basis of determining the value of subcontracted work.
Section 109-02	Final Additions and Deductions	
A.	Verification of Final Quantities	The entire text should be revised to reflect the fact that quantities and unit prices are not the basis of payment for DB contracts with few incidental exceptions.
B.	Availability of Construction Project Records to Contractors	• Text should be revised to delete references to "final quantities" and the like. • There is no need to take final cross-sections for payment purposes. • References to the "construction phase" should be changed to the

		"execution phase" that would include design and construction.
Section 109-03	Payments on Contract	
A.	Frequency	The term "quantity" should be revised to "amount", since quantities are not the basis of payment for most DB work.
B.	Documentation of Estimated Quantities	Text should be revised to delete reference to quantities.
Section 109-05	Extra and Force Account Work	Text should discuss the necessity to track construction labor and non-construction labor (engineering & design) separately for DB work due to different markups involved.
		Pg 109-10: • References to "Blue Book Rental Rates" should be changed to "Equipment Rental Rates". The "Blue Book" is no longewr published and has been replaced by "Equipment Rental Rates". • B.1, Agreed Prices: Weighted average bid prices may not be applicable to DB because the lump sum items are rarely "of similar type and quantity" and the weighted unit prices do not include any design costs.
		Pg 109-11: • B.2.a.(1), 2nd paragraph: Should determine how salvage value will be handled under DB and revise text as necessary. • B.2.a.(5)(a) Contractor Owned Equipment: See comment for Pg 109-10 regarding the "Blue Book".

		Pg 109-13: • See comment for Pg 109-10 regarding the "Blue Book". • "Green Guide" is no longer available. Should refer to "Equipment Rental Rates".
Section 109-06	Progress Payments	Text should be revised to delete reference to quantities.
Section 109-09	Final Acceptance of Work	References to "final quantities" should be removed and the method to be used for NYSDOT DB contracts discussed.
Section 109-10	Uncompleted Work Agreement	Since completion and payment under the basic contract is not based on quantities, it stands to reason that an Uncompleted Work Agreement should not be based on quantities. For DB, it would be advisable to describe uncompleted work in terms of "scope". Text should be revised accordingly.
	CONR 142-1	Should be revised for DB. Should include requirement for Professional Liability Insurance if any design work may be involved.
Section 201-3.01	Limits of Work Areas	Pg 201-1: 3rd paragraph: Since the DB Team will be doing design and determining work limits within the designated ROW, the DB Designer may be in a better position to designate the limits of the area to be cleared rather than the Engineer.
Section 203-04	Method of Measurement	A. The current text is not applicable to DB. Payment lines would not be part of "RFP Design" and payment not normally based on measured quantities.

		B. Text should be revised because: • The design is prepared by DB Team; • Payment lines not applicable to DB; • DB Designer should be involved in decision.
		C. Text should be revised because: • DB Designer is responsible for design and acquiring subsurface information and should make necessary determinations regarding unsuitable material; • Payment lines are not applicable to DB; • Any "approvals" should be made during the course of Design Reviews.
		D. Payment lines are not applicable to DB.
Section 203.4.01	General	Text should be revised to remove references to quantities and to methods of measurement of quantities since DB work paid on lump sum basis without measurements.
Section 206	Trench, Culvert & Structure Excavation	
206-4	Method of Measurement	A. Text should be revised because payment lines and quantities are typically not applicable to DB contract.
206-4.02	Trench and Culvert Excavation	Text should be rewritten. Since measurement and payment based on quantities will not be applicable to DB, the issue addressed in this section should not apply. Contractor gets paid for acceptable "work" regardless of method, not quantities.

Section 209	Temporary Soil Erosion & Water Pollution Control	
209-4	Method of Measurement	Payment based on measurement of quantities should be avoided for DB.
Section 550	Structures	Pg 550-3, II, Structural Steel Operations Related to Placing, Finishing and Curing: In the first two paragraphs, the text should include role of DB Designer in the "approval" process since the DB Designer is the engineer of record. The DB Designer is in the best position to explain or clarify the plans.
		Pg 550-5, V, Bridge Finishing Preparation, A: DB Designer should be involved in the "approval" process, too.
		Pg 550-6, VI, Concrete Operations, A1: Any deviation from placing sequence should be "approved" by the DB Designer – the engineer of record.
		Pg 550-11, #1 (bottom of page): Any deviation from placing sequence should be "approved" by the DB Designer – the engineer of record.
Section 555	Structural Concrete	
555-3.07	Concrete Joints	H. In the event of omission of construction joints on plans, the Engineer should consult with the DB Designer.
15555.20	High-Density Concrete Overlay	Pg 555-4: Text may need to be revised depending on NYSDOT decisions regarding QA/QC roles.
Section 584	Specialized Concrete Overlays for Structural Slabs	
584-3.09	Placing and Finishing Overlay	Pg 584-1: Text may need to be revised depending on NYSDOT decisions regarding

		depending on NYSDOT decisions regarding QA/QC roles.
Section 606	Guide Railing	
606-3	Construction Details	Pg 606-3, 1st paragraph: Text should be revised to reflect the fact that the DB Team has the primary responsibility for determining "solutions", not the Engineer.
Section 900	General Administrative Guidelines	
910	Instructions to Inspectors	Pg 910-1, 2nd paragraph: List of references should include the DB Procedures Manual (to be developed).

Bridge Manual

Compatibility of Bridge Manual with Design-Build Procurement

Chapter/Section	Title	Reason to Change
Section 3	Planning New and Replacement Bridges	Text should be revised to clarify what the Department will do as part of Design-Build Phases I-VII vs what the DB Team will do as part of Design-Build Phase VIII (See Draft DB Procedures Manual outline). It may be advisable for this and similar "internal" manuals to focus on Department/consultant roles and have the RFP and related components reflect DB Team requirements.
3.3	Site Data	Pg 3-3: First paragraph should reflect what Department will do as part of preparing environmental documents and the RFP and what is expected of the DB Team. Department will not be producing "PS&E documents" for DB contracts. Pg 3-4: 3rd paragraph should indicate who will be involved (and how) in review of DB Team produced design. Normal "submittal" and formal review with written comment exchange does not fit the fast track schedule of most DB projects.
3.7	Maintenance and Protection of Traffic	
3.7.1	General	1st paragraph: Text should be revised to reflect that in DB, the M&PT "criteria" should be determined during DB Phases I-IV, but not the actual method – normally part of DB Team proposal and evaluated as part of selection process.
3.7.3	Stage Construction	2nd paragraph: DB Team should determine its own staging procedures and details to match its design and the means and methods of construction it plans to use.

	Guidelines for Stage Construction Details	Pgs 3-18 & 3-19: The majority of the work decribed in the text should be left to the DB Team to develop within the guidelines established in the text and specified in the RFP.
3.7.4	On-Site Temporary Bridges	Pgs 3-20 & 3-21: The requirements of the project, including and local bridge incentive program bridges, should be spelled out and the DB Team approach evaluated during the evaluation & selection process. Allow flexibility and innovation.
3.8	Alternate Designs	Should delete indication that Design-Build is not allowed.
3.9	Final Preliminary Bridge Plan	Pgs 3-22 & 3-23: Preliminary Plans should be developed by Department only to extent necessary for environmental process. Care should be taken not to get so specific as to eliminate flexibility and innovation in design (and construction) approach.
Appendix 3A	Bridge Data Sheet Part 1	It may be advisable to clarify that the requirements do not necessarily reflect all the information that the Department will provide, but that the Department may supply much less information in RFP and have the Bridge Data Sheet completed and submitted by the DB Team.
Appendix 3D	Preliminary Plan Development Procedure for New and Replacement Bridges	Pg 3D-1:Text should reflect that for DB, PS&E packages will not be developed by Department, but “RFP package” should be require DB Team to prepare Preliminary Plans consistent with the requirements of this manual.
		Pg 3D-2: #1 – Support Data should be collected by Department and/or DB Team consistent will allocation of risk and responsibilities in RFP. Site Data package should go to DB Designer, not Department

		Pgs 3D-2 through 3D-4: Much of the required information should be developed by the DB Team.
		Pgs 3D-4 & 5: #3, In-Progress Technical Review • Text should reflect that for DB projects, reviews will be conducted per the DB Procedures Manual – easiest way to reflect that things will be different. • Text should reflect that, for DB, the DB Team "geotechnical group" will be determining need for additional subsurface information is needed and that that "group" will be developing the structure foundation recommendation, not the Department.
		Pgs 3D-6 & 7: #4, Complete Preliminary Structure Plan • c. Revised Preliminary Cost Estimate: At this stage of design development under DB project, revised cost estimate essentially meaningless because the project should be under contract at this stage and the DB Designer doing the design work. • d. Hydraulic Justification Report should be prepared by DB Team. • #5: Review process should follow that spelled out in DB Procedures Manual. • #7: Distribution will likely be different for DB project.

Appendix 3E	Preliminary Bridge Plan Work Process (Structure Division Design)	Will this be applicable for DB, since Structures Division will not be doing design?
Section 4	Excavation Sheeting and Cofferdams	• References to payment lines will not be applicable to DB projects. • Geotechnical Group, Rails, Structures and othjer Department groups should be involved in establishing the criteria for DB project but not making "input" to design in the traditional sense. DB Team will be responsible for solutions. • Fore DB, "Contract Plans" will be "RFP Plans" to much lower level of completion than PS&E level, so information to be included in "RFP Plans" should be defined.
		Tables on pgs 4-15, 16 & 17 do not fit DB; should be modified to some extent.
Section 14	Bridge Plan Standards and Organization	It should be recognized that the level of detail on "Design Plans" (generated by DB Designer) is often less than that required for a DBB project. Text may require modification to reflect that which Department actually needs for its records and allow DB some flexibility in displaying its design. No quantity sheets should be required of DB Team since quantities are not basis of payment to DB Team. DB Team may generate quantities for work let out to subcontractors or for other reasons. Pg 14-5: Boring Location Plan and General Subsurface Profile – information may be provided in full or in part by Department and/or DB Team
Appendix 14A	Contract Plan Review Checklist	The extent of information provided on the plans in the contract ("RFP Design") will be

		significantly less than that listed in the text. A checklist for "RFP Design" may be desirable, but the amount of information will likely vary from one project to another. Another checklist may be necessary to reflect information required for "early construction" packages. Such a checklist should probably be developed by the DB Designer, since the "early construction" packages will vary from one bridge to another. The existing checklist would apply to the final Design Plans developed by the DB Designer. An estimate of quantities should not be provided as a part of the "RFP Design". An estimate of quantities for the DB Team's design plans may be limited to only that quantity information necessary to determined the type and extent of QA/QC sampling and testing.
Section 16	Estimate of Quantities	
Section 16.1	General	The text should be supplemented for DB to reflect that: • Quantities are not normally provided to the DB Team. DB Team develops these during their proposal and final design processes. • Unit costs and unit prices are not normally used in DB contracts. • The EIC should be involved in the project well before letting and should be estimate information to manage the DB process, including price evaluation information to determine "best value" for selection. • The Estimate of Quantities Table is not applicable to DB.

		• The estimating method should be consistent with the pricing method that will be used in developing the Price Proposal (which most likely will not be quantities and unit prices).
Section 17	Standard Notes	While information regarding Standard Notes may be included in an RFP package, the Standard Notes should not be applied to the "RFP Plans" (there are no PS&E packages developed by the Department for DB) because the design will be far from complete at the RFP stage.
Section 18	Special Specifications	Text should reflect that the DB Team will be developing the bulk of "Project Specifications" (term used to differentiate specifications developed by DB Team from those developed by Department) to meet the particular requirements of the BD Team's design and means and methods of construction.
Section 19	Bridge Rehabilitation Projects	
Section 19.1.2	Preliminary Engineering	To the extent possible, decisions regarding selection of the most appropriate design alternative to be advanced to final design should be left to DB Team, with acceptance by Department. Alternatives may be requested and evaluated as part of selection process or developed after award, consistent with the parameters specified in the RFP.
Section 19.1.3	Final Design	Text should be revised to reflect that the DB Team does the final design and prepares "Design Plans" and "Project Specifications" to represent the final product. The Department does not prepare a "PS&E Package" in DB. Text should also reflect that the typical DB

		project will include "early construction" packages and reviews that cover work that will be initiated prior to completion of 100% designs.
Section 20	Quality	The text should be revised to reflect that the DB Designer will be producing the bulk of the designs. With the DB Team being given more responsibility for quality of the design and constructed product, the text should reflect the responsibilities for and approaches to design QC and QA, including design reviews, so that the Bridge Manual is consistent with the DB Procedures Manual (to be developed).
Section 20.2.1	Quality Control	Pg 20-2 – Estimate Checks: The method of estimating will likely change, since design-build estimates include more than just construction costs and quantities and DBB unit prices are not usually the basis of pricing.
Section 20.2.2	Technical Progress Reviews	The text should be revised to reflect the different stages of design development for design build and the different responsibilities for design development and design review. "ADP" and "PS&E" are not developed by the Department; "early construction" and final Design Plans are developed by the DB Designer in support of the project schedule developed by the DB Team. The table of Bridge Plan Technical Progress Reviews should be revised to be consistent with DB. The design review process should reflect the roles and responsibilities of the DB Team's Design QC Manager.

Part 131 Utilities Information

Compatibility of Part131 Utilities Information with Design-Build Procurement

Chapter/Section	Title	Reason to Change
Part 131	New York State Department of Transportation Rules and Regulations, NYCRR Title 17	
131.16	Permits and agreements	
131.16 (b)	Utility work Agreement	In the last sentence of the first paragraph, following "… letting of the State's construction contract", add ", or the Award of a D/B Contract,".
131.17	General construction procedures	
131.17 (a)	General	May need to be revised to indicate that approvals will take place after Award of the DS/B Contract during the Design Review process.
Section 131.20	Utility facilities on structures Contract	
131.20 (a)	General	May need to be revised to indicate that approvals will take place after Award of the DS/B Contract during the Design Review process.
131.20 (b)		May need to be revised to indicate that approvals will take place after Award of the DS/B Contract during the Design Review process.